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**KERALA FISHERIES**

**FACTS AND FIGURES**

**1980**

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# I MARINE FISHERIES—RESOURCES AND POTENTIAL

## 1.1 District-wise distribution coast line of Kerala

Sl. No.	Name of Marine district	Length of coast line	
		Length in Kms.	Percentage to total
(1)	(2)	(3)	(4)
1	Trivandrum	78	13.2
2	Quilon	37	6.3
3	Alleppey	82	13.9
4	Ernakulam	46	7.8
5	Trichur	54	9.2
6	Malappuram	70	11.8
7	Kozhikode	71	12.0
8	Cannanore	152	25.8
Total		590	100.0

## 1.2 Continental Shelf area and Estimated Potential demersal fishery resources of Kerala

Division of continental shelf based on depth range		Area (Sq. m)	Estimated total demersal fishery resources based on average catch rates (in tonnes)	Estimated potential substantiable yield at 60% (in tonnes)
(1)	(2)	(3)	(4)	(5)
Inshore area (0-10 fathoms)	5057	37935	22761	
Off-shore area (10-40 fathoms)	24442	90432	54259	
Deep sea area (40-100 fathoms)	10224	17040	10224	
Total area (0-100 fathoms)	39723	145407	87244	

Source: "Demersal fisheries Resources off the south-west coast of India" by Exploratory Fisheries Project, Government of India

## 1.3 Extent of continental shelf area in different bathymetrical and geographical division off the south-west coast of India

Depth range division	0-10 Area in Sq. Kms.	10-40 Area in Sq. Kms.	40-100 Area in Sq. Kms.	Total 0-100 Area in Sq. Kms.
(1)	(2)	(3)	(4)	(5)
7-77	..	4802	3259	8061
7-76	..	70	1801	1871
8-77	343	1972	..	2315
8-76	..	172	344	516
Sub total: West-coast of Tamil Nadu	343	7016	5404	12763



(1)	(2)	(3)	(4)	(5)
8-77	86	172	..	258
8-76	343	4116	1628	6087
9-76	943	3088	133	4164
9-75	..	1115	1518	2633
10-76	514	429	..	943
10-75	429	4287	1457	6173
11-75	1372	6089	686	8147
11-74	..	1029	2316	334
12-75	685	258	..	943
12-74	685	3859	2486	7030
Sub total: Kerala State	5057	24442	10224	39723
12-74	172	858	429	1459
13-74	1200	6689	258	8147
13-73	..	1715	3945	5660
14-74	1200	2830	..	4030
14-73	..	3259	4459	7718
Sub total: Karnataka State	2572	15351	9091	27014
Grand total	7972	46809	24719	79500

Source: Demersal Fisheries Resources off the south-west coast of India by Exploratory Fisheries Project.

#### 1.4 Potential Yield of Important species of fishes in the South-West-Coast of India (000' tonnes)

Varieties	South West Coast				Total for India	
	C. Y.	P. Y.			C. Y.	P. Y.
		0-50	50-200	Total 0-200		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Elasmobranchs	14	15	30	45	60	185
2. Cat fishes	27	40	80	120	57	310
3. Bombay duck	..	..	..	..	105	100
4. Perches	7	20	100	120	17	250
5. Polynemids	..	..	..	..	10	40
6. Sciaenids	14	20	..	20	70	210
7. Leiognathus	12	15	..	15	48	100
8. Pomfret	3	..	..	..	33	85
9. Oil sardines	131	180	..	180	134	195
10. Other sardines	34	40	..	40	87	140
11. Anchoviella	17	40	120	160	37	240
12. Other clupeids	6	10	..	10	85	165
13. Ribbon fishes	20	30	80	110	57	270
14. Carangids	11	30	80	110	26	265

(1)	(2)	(3)	(4)	(5)	(6)	(7)
15. Mackerel	531	80	..	80	68	105
16. Seer fishes	6	10	..	10	24	45
17. Tuna & Allied fishes	8	10	50	60	13	240
18. Penaeid Prawns	80	80	15	95	127	130
19. Non-penaeid Prawns	1	..	..	..	83	105
20. Other crustaceans	4	5	5	10	17	40
21. Cephalopods	2	5	30	35	3	180
22. Other fishes	71	70	130	200	170	520
23. Total	531	700	720	1420	1333	3970
24. Oceanic/Fishes (200 m)	..	..	..	..	..	500
<b>Grand total</b>						<b>4470</b>

P.Y.—Potential yield, C. Y.—Current yield

Source: Fishery Resources of the Indian Economic Zone by P. C. George, B. T. Antony and K. C. George.

### 1.5 Area of Potential Fishing Grounds in India (State-wise)

State/Union Territories	Area upto 50 metres (In '000)	50-200 metres	Hectares Total
(1)	(2)	(3)	(4)
West Bengal	994	2286	3280
Orissa	1707	2363	4070
Andhra Pradesh	1661	3104	4765
Tamil Nadu and Pondicherry	2326	4142	6468
Kerala	1257	3594	4851
Karnataka	794	2547	3341
Goa	285	998	1283
Maharashtra	2551	10476	13027
Gujarat	6481	9937	16418
Andamans	..	1533	1533
Nicobar	..	73	73
Lakshadweep	..	434	434

Source: Central Marine Fisheries Research Institute Bulletin No. 27, March 1976.

### 1.6 Estimated Potential Yield (Million tonnes) Based on rate of Fish Production (Tonnes per Sq. Km.)

Region	0-50m		50-200m		0-200m
	Rate	Yield	Rate	Yield	Total
South-west coast	30	0.701	15	0.721	1.422
North-west coast	6	0.542	3	0.341	0.883
Lower east coast	12	0.478	6	0.196	0.674
Upper east coast	20	0.546	10	0.195	0.735
Andaman & Nicobar	..	..	..	..	0.160
Laccadive	..	..	..	..	0.090
Residual area of the Economic zone	..	..	..	..	0.500
<b>Total</b>					<b>4.464</b>

## II MARINE FISH LANDINGS

## 2.1 Species-wise composition of Marine fish landings in Kerala (1975 to 1979)

Sl. No.	Name of fish	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Elasmobranchs	10292	7308	5796	9302	6954
2.	Eels	12	10	6	38	10
3.	Cat fishes	32603	12743	7947	9125	11328
4.	Chirocentrus	605	807	547	1298	1125
5.	(a) Oil Sardine	97183	123937	117356	119937	116834
	(b) Lesser Sardine	33652	34305	20754	11713	15914
	(c) Hilsa Ilisha	10	12	36	182	6
	(d) Other Hilsa	..	..	14	69	39
	(e) Anchovilla	11432	9987	10105	21203	6552
	(f) Thrissocles	1638	2732	1648	1898	1789
	(g) Other clupeids	998	1174	512	973	674
6.	(a) Harpodon Nehereus	..	..	..	21	1
	(b) Saurida & Saurus	11294	99	5169	6246	5326
7.	Hemirhamphus	278	141	281	281	257
8.	Flying fish	..	1	..	..	..
9.	Perches	14741	3069	14121	24989	20239
10.	Red Mullet	23	2577	240	171	127
11.	Polynemids	105	122	69	35	29
12.	Sciaenids	16811	6955	11965	13045	5237
13.	Ribbon fish	15175	7687	7440	24207	25718
14.	(a) Caranx	7190	10478	15673	7197	12339
	(b) Chorinemus	135	265	540	148	128
	(c) Trachynotus	6	..	7	19	..
	(d) Other carangids	85	6	78	72	..
	(e) Coryphaena	61	56	28	19	48
	(f) Elacate	62	106	158	166	120
15.	(a) Leiognathus	5211	2727	7708	3040	3597
	(b) Gazza	..	..	..	..	..
16.	Lactarius	983	468	823	1533	253
17.	Pomfrets	1181	799	3712	1614	1737
18.	Mackerel	14930	19978	19968	25917	18585
19.	Seerfish	4065	5936	3250	3354	6275
20.	Tunnies	5845	12880	6705	6548	15391
21.	Sphyræna	396	494	353	721	477
22.	Mugil	74	26	38	1	39
23.	Bregmaceros	..	..	..	..	..
24.	Soles	6932	3567	5778	7276	4487
25.	(a) Penaeid prawns	77207	34478	40150	45034	29522
	(b) Non-penaeid prawns	755	55	174	394	75
	(c) Crabs and other crustaceans	1797	1316	4621	2176	7643
	(d) Lobsters	31	50	40	38	26
26.	Cephalopods	3342	872	4973	6516	2976
27.	Miscellaneous	43696	22824	26254	16823	8635
Total		420836	331047	345037	373339	330509

Source: C.M.F.R.I.

## 2.2 Species-wise composition of Marine Fish Landings in Kerala (1975-76 to 1979-80)

Quantity: Tonnes  
Value: Rs. '000

Sl. No.	Name of fish	1975-76		1976-77		1977-78		1978-79		1979-80 *	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Elasmobranchs	12043	12344	5295	5740	6310	7257	9616	11347	7687	9301
2.	Eels	15	21	8	13	40	72	30	60	11	23
3.	Cat fishes	33771	38837	10845	12960	8367	10174	8561	10813	11592	14606
4.	Chirocentrus	604	714	1594	1945	3048	3840	906	1178	1264	1643
5.	(a) Oil Sardines	83446	68426	113442	96426	111441	95839	114390	101807	115728	104155
	(b) Lesser sardines	35533	31980	37924	34966	14361	13499	12308	11877	17161	16646
	(c) Hilsa Ilisha	..	..	..	..	..	..	..	..	..	..
	(d) Other Hilsa	..	..	..	..	..	..	..	..	..	..
	(e) Anchoviella	11703	8426	9550	7163	13184	10679	18781	15400	7513	6311
	(f) Thrissocles	900	792	2816	2563	2400	2270	1576	1568	1761	1743
	(g) Other clupeids	1055	975	1084	1068	490	517	859	953	735	831
6.	(a) Harpodon nchereus	..	..	..	..	..	..	..	..	1	..
	(b) Saurida & Saurus	10940	15163	337	472	5288	7403	6000	8400	5450	7630
7.	Hemirhamphus & Belone	284	244	188	167	293	275	314	314	249	249
8.	Flying fish	96	91	..	..	..	..	..	..	..	..
9.	Perches	13562	17088	3426	4454	12987	17766	27565	37902	18865	26411
10.	Red mullets	2277	2773	342	445	233	319	265	371	106	151
11.	Polynemids	177	163	90	86	19	19	55	55	28	29
12.	Sciaenids	16325	16896	7164	7522	13835	14969	12309	13540	5092	5601
13.	Ribbon fish	14900	13410	7295	6638	8847	8051	23232	21490	25643	23848
14.	(a) Caranx	7355	7392	10129	10818	16432	18190	7203	8010	11976	13293
	(b) Chorinemus	132	121	278	261	516	516	165	173	156	164
	(c) Trachynotus	6	8	1	1	25	41	..	..	..	..
	(d) Other carangids	84	50	..	..	78	51	72	50	..	..
	(e) Coryphaena	79	131	16	27	79	145	44	81	134	253
	(f) Elacate	131	248	50	99	171	342	176	370	122	256
15.	(a) Leiognathus	5156	3145	2726	1772	7721	5019	3366	2222	3368	2223
	(b) Gazza	..	..	..	..	..	..	..	..	..	..
16.	Lactarius	891	1693	427	839	804	1608	1498	3221	314	685
17.	Pomfrets	1221	3810	1048	3406	3938	13389	1570	5765	1529	5657
18.	Mackerel	11008	16732	17038	27227	23752	38478	23296	38625	16535	27448
19.	Seer fish	5752	23123	4432	19501	3106	14288	3509	16247	6474	30104
20.	Tunnies	10973	25787	7532	21542	6769	20307	6707	20121	15607	47757
21.	Sphyraena	572	921	290	535	418	838	780	1622	444	932
22.	Mugil	77	122	26	43	34	62	31	59	39	76
23.	Bregmaceros	..	..	..	..	..	..	..	..	..	..
24.	Soles	6326	3732	3759	2293	6568	4565	7411	5410	4426	3231
25.	(a) Penaeid prawns	74145	383997	37379	271372	39406	329828	47537	437816	29939	298192
	(b) Non-penaeid prawns	..	..	..	..	..	..	..	..	..	..
	(c) Lobsters	..	..	..	..	..	..	..	..	..	..
	(d) Crabs	2142	3534	1621	2983	4752	9029	3455	7062	7123	14958
	(e) Other crustaceans	..	..	..	..	..	..	..	..	..	..
26.	Cephalopods	3361	5075	983	1622	5254	8984	6125	10474	3134	7835
27.	Miscellaneous	40881	37202	28409	29829	20559	23746	18154	21785	8305	9776
Total		407923	745166	317544	576798	341525	682375	367866	816188	328510	682018

\* Provisional



### 2.3 Annual Variation in Kerala's Marine Fish Landings

(Quantity in tonnes)

Year	Landings (in tonnes)	Variation (tonnes)	Percentage Variation
(1)	(2)	(3)	(4)
1970	392880	..	..
1971	445347	(+) 52467	(+) 13.4
1972	295618	(-) 149729	(-) 33.6
1973	448269	(+) 152651	(+) 51.6
1974	420257	(-) 28012	(-) 6.2
1975	420836	(+) 579	(+) 0.1
1976	331047	(-) 89789	(-) 21.3
1977	345037	(+) 13990	(+) 4.2
1978	373339	(+) 28302	(+) 8.2
1979	330509	(-) 42830	(-) 11.5

### 2.4 Trend of Marine fish catches by mechanised and non-mechanised craft along the coast of Kerala (1969 to 1979)

Year	Total Catch	Catch by non- mechanised craft	Catch by mechanised craft	Percentage of catch by mech- anised craft to total catch
(1)	(2)	(3)	(4)	(5)
1969	294787	266610	28177	9.6
1970	392880	340309	52571	13.4
1971	445347	398056	47291	10.6
1972	295618	256970	38648	13.1
1973	448269	354610	93659	20.9
1974	420257	318845	101412	24.1
1975	420836	240725	180111	42.8
1976	331047	272330	58717	17.7
1977	345037	237613	107424	31.1
1978	373339	255983	117356	31.4
1979	330509	235730	94779	28.7

Source: CMFRI

## 2.5 Variation in marine fish catches by mechanised and non-mechanised vessels along the coast of Kerala (1969-79)

Year	Total catch (Tonnes)	Catch by non-mechanised craft				Catch by mechanised crafts			
		Total catch (Tonnes)	Increase or decrease compared to 1969 from col. 3	Successive increase or decrease from previous year		Total catch (Tonnes)	Increase or decrease compared to 1969 from Col. 7	Successive increase or decrease from previous year	
		(Tonnes)		Tonnes	%	(Tonnes)		Tonnes	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1969	294787	266610	..	..	..	28177	..	..	..
1970	392880	340309	(+) 73699	(+) 73699	(+) 27.6	52571	(+) 24394	(+) 24394	(+) 86.6
1971	445347	398056	(+) 131446	(+) 57747	(+) 17.0	47291	(+) 19114	(-) 5280	(-) 10.0
1972	295618	256970	(-) 9640	(-) 141086	(-) 35.4	38648	(+) 10471	(-) 8643	(-) 18.3
1973	448269	354610	(+) 88000	(+) 97640	(+) 38.0	93659	(+) 65482	(+) 55011	(+) 142.3
1974	420257	318845	(+) 52235	(-) 35765	(-) 10.1	101412	(+) 73235	(+) 7753	(+) 8.3
1975	420836	240725	(-) 25885	(-) 78120	(-) 24.5	180111	(+) 151934	(+) 78699	(+) 77.6
1976	331047	272330	(+) 5720	(+) 31605	(+) 13.1	58717	(+) 30540	(-) 121394	(-) 67.4
1977	345037	237613	(-) 28997	(-) 34717	(-) 12.7	107424	(+) 79247	(+) 48707	(+) 83.0
1978	373339	255983	(-) 10627	(+) 18370	(+) 7.7	117356	(+) 89179	(+) 9932	(+) 9.2
1979	330509	235730	(-) 30880	(-) 20253	(-) 7.9	94779	(+) 66602	(-) 22577	(-) 19.2

## 2.6 Composition of catch in the mechanised Fishing of Kerala 1978

Sl. No.	Name of fish	Catch in tonnes	Percentage
1.	Elasmobranchs	9302	7.90
2.	Eels	38	0.03
3.	Cat fishes	9125	7.80
4.	Perches	21919	18.70
5.	Red mullets	171	0.15
6.	Polynemids	35	0.03
7.	Sciaenids	12045	10.30
8.	Lactarius	1533	1.3
9.	Leiognathus	2140	1.8
10.	Pomfrets	1614	1.4
11.	Soles	5276	4.5
12.	Penacid prawns	45034	38.4
13.	Non penacid prawns	394	0.34
14.	Lobsters crabs and other crust accans	214	0.18
15.	Cephalopods	5506	4.7
16.	Miscellaneous	2010	2.47
Total		117356	100.00

Source: C.M.F.R.I.  
43/3530/MC.

## 2.7 Composition of marine catches by mechanised and non-mechanised vessels in Kerala—1979

(Figures in Tonnes)

Sl.No.	Name of fish	Mechanised catch	Non-Mechanised catch	Total
1.	Elasmobranchs	[ +57 3716	3181	6954
2.	Eels	7	3	10
3.	Cat fishes	[ 4724+ 99	6505	11328
4.	Chirocentrus	25	1100	1125
5.	(a) Oil sardine	[ 511+ 2958	113365	116834
	(b) Lesser Sardine	10	15904	15914
	(c) Hilsa ilisha	..	6	6
	(d) Other Hilsa	3	33	36
	(e) Anchoviella	2+		
	(f) Thrissocles	571	5979	6552
	(g) Other clupeids	257	1532	1789
		61	612	674
6.	(a) Harpodon nehereus	1	..	1
	(b) Saurida & Saurus	[ 1+ 5238	87	5326
7.	Heomirhamphus & Belone	56	201	257
8.	Flying fish	..	..	..
9.	Perches	[ 93+ 18245	1901	20239
10.	Red mullets	105	22	127
11.	Polynemids	26	3	29
12.	Sciaenids	[ 3+ 3898	1336	5237
13.	Ribbon Fish	[ 33+ 886	24799	25718
14.	(a) Caranx	[ 27+ 473	11839	12339
	(b) Chorinemus	105	23	128
	(c) Trachynotus	..	..	..
	(d) Other carangids	..	..	..
	(e) Coryphaena	3	45	48
	(f) Elacate	46	74	120
15.	(a) Leiognathus	[ 10+ 1003	2584	3597
	(b) Gazza	..	..	..
16.	Lactarius	26	227	253
17.	Pomfrets	533	1204	1737
18.	Mackerel	[ 39+ 418	18128	18585
19.	Seer fish	1528	4747	6275
20.	Tunnies	[ 1+ 2987	12403	15391
21.	Sphyraena	[ 1+ 29	447	477
22.	Mugil	..	39	39
23.	Bregmaceros	..	..	..
24.	Soles	3932	555	4487
25.	(a) Penacid prawns	[ 1+ 26566	2955	29522
	(b) Non-penacid prawns	..	75	75
	(c) Lobsters	6	20	26
	(d) Crabs	3586	259	3845
	(e) Squilla	3798	..	3798
26.	Cephalopods	[ 1+ 1536	1439	2976
27.	Miscellaneous	[ 100+ 6438	2097	8635
Total		985+ 93794	235730	330509

7643

+ Off shore catch

Source: C.M.F.R.I.

## 2.8 Composition of marine catches by mechanised and non-mechanised vessels in Kerala—1980\*

(Figures in tonnes)

Sl. No.	Name of fish	Mechanised catch	Non-mechanised catch
(1)	(2)	(3)	(4)
1.	Elasmobranchs	3993	2760
2.	Eels	6	..
3.	Cat fishes	11209	2574
4.	<i>Chirocentrus</i>	74	928
5.	(a) Oil Sardine	12042	57625
	(b) Lesser Sardines	266	10751
	(c) <i>Hilsa ilisha</i>	..	.14
	(d) Other <i>Hilsa</i>	..	21
	(e) <i>Anchoviella</i>	609	7163
	(f) <i>Thrissoles</i>	303	1938
	(g) Other clupeids	161	413
6.	(a) <i>Harpodon nehereus</i>	..	..
	(b) <i>Saurida &amp; Saurus</i>	6711	369
7.	<i>Hemirhamphus &amp; Belone</i>	4	357
8.	Flying fish	..	..
9.	Perches	16356	1450
10.	Red mullets	..	1
11.	Polynemids	8	..
12.	Sciaenids	4991	1173
13.	Ribbon fish	279	12658
14.	(a) <i>Caranx</i>	659	3740
	(b) <i>Chorinemus</i>	88	57
	(c) <i>Trachynotus</i>	..	..
	(d) Other carangids	..	59
	(e) <i>Coryphaena</i>	9	129
	(f) <i>Elacate</i>	17	2
15.	(a) <i>Leiognathus</i>	1460	2687
	(b) <i>Gazza</i>	..	1
16.	<i>Lactarius</i>	140	721
17.	Pomfrets	496	411
18.	Mackerel	5067	13407
19.	Seer fish	1331	2432
20.	Tunnies	2376	8235
21.	<i>Sphyræna</i>	28	302
22.	Mugil	37	114
23.	<i>Bregmaceros</i>	..	..
24.	Soles	4121	273
25.	(a) Penaeid prawns	46170	6463
	(b) Non-penaeid prawns	..	1742
	(c) Lobsters	..	18
	(d) Crabs	294	32
	(e) <i>Squilla</i>	6958	2
26.	Cephalopods	3016	1226
27.	Miscellaneous	5504	1990
Total		134783	144238
			279021

\* Provisional

Source: C.M.F.R.I.



## 2.9. District-wise Marine Fish Landings in Kerala—1978

Sl. No.	Name of fish	Trivandrum		Quilon		Alleppey		Ernakulam		Trichur		Malappuram		Kozhikode		Cannanore		Total	
		Quantity	% to total	Quantity	% to total	Quantity	% to total	Quantity	% to total	Quantity	% to total	Quantity	% to total	Quantity	% to total	Quantity	% to total	Total Quantity	Total %
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1	Elasmobranchs	584	6.4	4219	45.5	731	8.1	2446	26.4	78	0.9	163	1.9	411	4.5	670	7.3	9302	100
2	Eels	4	10.5	6	15.8	..	..	27	71.1	1	2.6	..	..	..	..	..	..	38	100
3	Cat Fishes	322	3.5	5375	58.9	727	8.0	1388	15.2	109	1.2	259	2.8	584	6.4	361	4.0	9125	100
4	Chirocentrus	324	25	326	25	79	6.1	84	6.5	6	0.5	..	..	185	14.3	294	22.6	1298	100
5	(a) Oil Sardine	914	0.8	5496	4.6	18789	15.7	19446	16.2	7051	5.9	7782	6.4	26743	22.3	33716	28.1	119937	100
	(b) Lesser sardine	1877	16.0	1934	16.5	7509	64.1	133	1.1	15	0.2	10	0.1	73	0.6	162	1.4	11713	100
	(c) Hilsa Illisha	164	90.1	..	..	18	9.9	..	..	..	..	..	..	..	..	..	..	182	100
	(d) Other Hilsa	3	4.3	64	92.8	2	2.9	..	..	..	..	..	..	..	..	..	..	69	100
	(e) Anchoviella	9925	46.8	2076	9.8	2757	13.0	4246	20.0	1323	6.2	180	0.8	449	2.2	247	1.2	21203	100
	(f) Thrissocles	99	5.2	205	10.8	67	3.6	52	2.7	18	0.9	46	2.4	178	9.5	1233	64.9	1898	100
	(g) Other clupeids	81	8.3	541	55.6	101	10.4	28	2.9	4	0.4	32	3.3	62	6.4	124	12.7	973	100
6	(a) Harpodon Nhereus	..	..	21	100.0	..	..	..	..	..	..	..	..	..	..	..	..	21	100
	(b) Saurida & Saurus	419	6.7	5413	86.7	194	3.1	193	3.1	18	0.3	7	0.1	1	..	1	..	6246	100
7	Homirh amphus & Belone	103	36.6	130	46.3	35	12.4	12	4.3	1	0.4	..	..	..	..	..	..	281	100
8	Flying fish	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9	Perches	1684	6.7	20384	81.6	1554	6.2	974	3.8	267	1.1	92	0.4	18	0.1	16	0.1	24989	100
10	Red Mullet	85	49.7	70	40.9	8	4.7	6	3.5	..	..	1	0.6	1	00.6	..	..	171	100
11	Polynemids	..	..	..	..	3	8.4	20	58.3	4	11.1	1	2.8	..	..	7	19.4	35	100
12	Sciaenids	2556	19.6	5424	41.5	732	5.6	1251	9.6	76	0.6	494	3.8	1028	7.9	1484	11.4	13045	100
13	Ribbon fish	21018	86.8	2284	9.4	236	1.0	210	0.9	105	0.4	140	0.6	193	0.8	21	0.1	24207	100
14	(a) Caranx	4433	61.6	1470	20.4	169	2.4	531	7.4	89	1.2	60	0.8	178	2.5	267	3.7	7197	100
	(b) Chlorinemus	15	10.1	9	6.1	..	..	124	83.8	..	..	..	..	..	..	..	..	148	100
	(c) Trachynotus	13	68.4	..	..	1	5.2	4	21.2	1	5.2	..	..	..	..	..	..	19	100
	(d) Other carangids	2	2.8	..	..	68	94.4	2	2.8	..	..	..	..	..	..	..	..	72	100
	(e) Coryphaena	13	68.4	3	15.8	..	..	3	15.8	..	..	..	..	..	..	..	..	19	100
	(f) Elacate	79	47.9	6	3.6	..	..	81	48.5	..	..	..	..	..	..	..	..	166	100
15	(a) Leiognathus	594	19.5	457	15.0	558	18.4	782	25.7	167	5.5	157	5.2	227	7.5	98	3.2	3040	100
	(b) Gazza	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

16	Lactarius	665	43.5	677	44.2	62	4.0	81	5.2	6	0.3	1	0.1	15	1.0	26	1.7	1533	100
17	Pomfrets	194	12.0	289	18.0	412	25.4	519	32.1	3	0.2	..	..	1	0.1	196	12.2	1614	100
18	Mackerel	1292	5.0	896	3.5	2668	10.3	2762	10.7	1863	7.2	2501	9.7	6660	25.6	7275	28.0	25917	100
19	Seer fish	1304	38.9	372	11.1	182	5.4	1046	31.2	11	0.3	2	0.1	11	0.3	426	12.7	3354	100
20	Tunnies	4982	76.0	501	7.7	167	2.6	890	13.6	6	0.1	2	..	..	..	..	..	6548	100
21	Sphyraena	480	66.7	161	22.3	6	0.8	6	0.8	1	0.1	24	3.3	43	6.0	..	..	721	100
22	Mugil	..	..	..	..	..	..	..	..	..	..	..	..	1	100.0	..	..	1	100
23	Bregmaceros	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24	Soles	472	6.5	3786	52.0	427	5.9	1155	13.9	66	0.9	264	3.6	525	7.2	581	8.0	7276	100
25	(a) Penaed prawns	125	0.3	32010	71.1	1972	4.4	3315	7.4	77	0.2	360	0.8	2448	5.4	4727	10.4	45034	100
	(b) Nonpenaeid prawns	173	43.9	50	12.7	116	29.5	..	..	2	0.5	1	0.2	..	..	52	13.2	394	100
	(c) Other crustaceans	83	3.8	1828	82.6	92	4.2	138	6.2	44	2.0	15	0.6	7	0.3	7	0.3	2214	100
26	Cephalopods	4560	70.0	1368	21.0	198	3.0	198	3.0	103	1.6	26	0.4	31	0.5	32	0.5	6516	100
27	Miscellaneous	1982	11.8	8418	50.0	1275	7.6	3900	23.2	445	2.6	337	2.0	363	2.2	103	0.6	16823	100
	Total	61623	16.5	106269	28.5	41915	11.2	46053	12.3	11960	3.2	12957	3.5	40436	10.8	52126	14.0	373339	100

Source: C.M.F.R.I.

## 2.10. District-wise Marine Fish Landings in Kerala—1979

Sl. No.	Type of Fish	Trivandrum		Quilon		Alleppey		Ernakulam		Trichur		Malappuram		Kozhikode		Cannanore		Total	
		Quantity	% to total	Quantity	% to total	Quantity	% to total	Quantity	% to total	Quantity	% to total	Quantity	% to total	Quantity	% to total	Quantity	% to total	Total Quantity	Total %
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1	Elasmobranchs	990	14.4	1350	19.6	551	8.0	1858	26.8	432	6.3	313	4.5	418	6.1	985	14.3	6897	100.0
2	Eels	..	..	..	..	..	..	7	70.0	1	10.00	..	..	1	10.0	1	10.0	10	100.0
3	Cat fishes	500	4.5	3288	29.3	910	8.1	1502	13.4	303	2.7	259	2.3	1245	11.1	3222	28.6	11229	100.0
4	Chirocentrus	604	53.7	115	10.2	16	1.4	28	2.5	38	3.4	28	2.5	41	3.6	255	22.7	1125	100.0
5	(a) Oil Sardine	5968	5.1	5065	4.4	25193	21.7	15290	13.1	15001	12.9	7350	6.3	16511	14.2	25945	22.3	116323	100.0
	(b) Lesser Sardine	5043	31.7	1679	10.6	7494	47.1	396	2.5	130	0.8	55	0.3	576	3.6	541	3.4	15914	100.0
	(c) Hilsa illisha	6	100.0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	100.0
	(d) Other Hilsa	33	91.6	2	5.6	..	..	1	2.8	..	..	..	..	..	..	..	..	36	100.0
	(e) Anchoviella	4112	62.7	1885	28.7	162	2.5	351	5.4	19	0.3	6	0.1	10	0.2	5	0.1	6550	100.0
	(f) Thissocles	38	2.1	424	23.7	485	27.1	170	9.5	159	8.9	145	8.2	169	9.4	199	11.1	1789	100.0

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	(g) Other clupeids	60	8.9	411	61.0	43	6.4	83	12.3	9	1.3	..	..	..	..	68	10.1	674	100.0
6	(a) Harpodon Nehereus	..	..	..	..	..	..	..	..	..	..	..	..	1	100	..	..	1	100.0
	(b) Saurida & Saurus	27	0.5	4810	90.3	2	..	466	8.8	2	..	5	0.1	10	0.2	3	0.1	5325	100.0
7	Hemirhamphus & Belone	36	14.1	121	47.1	17	6.6	52	20.2	..	..	..	..	16	6.2	15	5.8	257	100.0
8	Flying fish	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9	Perches	1676	8.3	15306	76.0	106	0.5	2873	14.3	42	0.2	27	0.1	65	0.3	51	0.3	20146	100.0
10	Red Mulletts	..	..	21	16.5	1	0.8	..	..	..	..	37	29.1	68	53.6	..	..	127	100.0
11	Polynemids	..	..	..	..	..	..	1	3.4	..	..	8	27.6	18	62.1	2	6.9	29	100.0
12	Sciaenids	794	15.2	1611	30.8	304	5.8	1339	25.6	137	2.6	130	2.5	254	4.9	665	12.6	5234	100.0
13	Ribbon fish	21056	82.0	2002	7.8	87	0.3	638	2.5	170	0.7	69	0.3	853	3.3	310	3.1	25685	100.0
14	(a) Caranx	10171	82.6	537	4.7	252	2.0	307	2.5	181	1.5	80	0.6	256	2.1	492	4.0	12312	100.0
	(b) Chorinemus	9	7.0	11	8.6	1	0.8	104	81.2	1	0.8	1	0.8	1	0.8	..	..	128	100.0
	(c) Trachynotus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	(d) Other Carangids	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	(e) Coryphaena	38	79.2	7	14.6	..	..	3	6.2	..	..	..	..	..	..	..	..	48	100.0
	(f) Elacate	15	12.5	1	0.8	35	29.2	45	37.5	..	..	..	..	12	10.0	12	10.0	120	100.0
15	(a) Leiognathus	1051	29.3	936	26.1	305	8.5	313	8.7	33	0.9	71	2.0	111	3.1	767	21.4	3587	100.0
	(b) Gazza	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16	Lactarius	148	58.5	16	6.3	14	5.5	24	9.5	3	1.2	14	5.5	26	10.3	8	3.2	253	100.0
17	Pomfrets	559	32.2	134	7.8	39	2.2	320	18.4	23	1.3	38	2.2	125	7.2	499	28.7	1737	100.0
18	Mackerel	4133	22.3	1475	8.0	3699	19.9	1181	6.4	2782	15.0	1710	9.2	2177	11.7	1389	7.5	18540	100.0
19	Seer Fish	2698	43.0	544	8.7	559	9.4	1168	18.6	68	1.1	60	1.0	121	1.8	1027	16.4	6275	100.0
20	Tunnies	11937	77.6	1881	12.3	47	0.3	1496	9.7	4	..	7	..	14	0.1	2	..	15390	100.0
21	Sphyræna	424	89.1	22	4.6	..	..	27	5.7	2	0.4	1	0.2	..	..	..	..	476	100.0
22	Mugil	..	..	6	15.4	6	15.4	19	48.8	6	15.4	1	2.5	1	2.5	..	..	39	100.0
23	Bregmaceros	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24	Soles	254	5.7	2269	50.6	502	11.2	455	10.1	80	1.8	151	3.4	318	7.0	458	10.2	4480	100.0
25	(a) Penaied Prawns	63	0.2	15135	51.3	1400	4.7	4996	16.9	1035	3.5	1444	4.9	2468	8.4	2980	10.1	29521	100.0
	(b) Non penaied Prawns	53	70.7	16	21.3	6	8.0	..	..	..	..	..	..	..	..	..	..	75	100.0
	(c) Lobsters	8	40.00	9	45.0	2	10.0	..	..	..	..	..	..	1	5.00	..	..	20	100.0
	(d) Crabs	..	..	1206	31.34	208	5.41	907	23.58	25	0.65	184	4.78	730	18.99	585	15.25	3845	100.0
	(e) Squilla	..	..	1941	51.11	..	..	1857	48.89	..	..	..	..	..	..	..	..	3798	100.0
26	Cephalopods	1376	46.25	1157	38.89	2	0.07	440	14.79	..	..	..	..	..	..	..	..	2975	100.0
27	Miscellaneous	685	8.03	2515	29.47	404	4.73	1010	11.83	2684	31.45	1006	11.79	103	1.20	128	1.50	8535	100.0
	Total:	74656	22.63	67943	20.62	42882	13.01	39727	12.06	23370	7.09	13202	4.00	26721	8.11	41114	12.48	329524	100.0

Source: C.M.F.R.I.

## 2.11. District-wise Marine Fish Landings in Kerala—1980\*

(Fig. in tonnes)

Sl. No.	Name of Fish	Trivandrum	Quilon	Alleppey	Ernakulam	Trichur	Malappuram	Kozhikode	Cannanore	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Elasmobranchs	546	1926	230	942	774	719	980	636	6753
2.	Eels	..	..	..	5	1	..	..	..	6
3.	Cat Fishes	418	9404	50	1006	909	591	915	490	13783
4.	<i>Chirocentrus</i>	328	218	20	91	43	90	150	56	1002
5.	(a) Oil Sardine	5709	7266	7730	12328	5793	7119	15513	8209	69667
	(b) Lesser Sardines	2945	1291	6511	242	15	3	6	4	11017
	(c) <i>Hilsa Ilisha</i>	12	..	..	1	1	..	..	..	14
	(d) Other <i>Hilsa</i>	18	..	..	2	1	..	..	..	21
	(e) <i>Anchoviella</i>	3893	2925	37	425	192	148	151	1	7772
	(f) <i>Thrissoles</i>	164	169	1247	251	35	51	103	221	2241
	(g) Other clupeids	66	59	37	167	5	1	104	135	574
6.	(a) <i>Harpodon nehereus</i>	..	..	..	..	..	..	..	..	..
	(b) <i>Saurida &amp; Saurus</i>	346	6424	29	256	3	1	12	9	7080
7.	<i>Hemirhamphus &amp; Belone</i>	231	94	8	21	6	..	1	..	361
8.	Flying Fish	..	..	..	..	..	..	..	..	..
9.	Perches	1298	15037	58	1250	118	42	1	2	17806
10.	Red mullets	1	..	..	..	..	..	..	..	1
11.	Polynemids	..	..	..	..	..	..	1	7	8
12.	Sciaenids	358	3074	43	1748	398	172	115	256	6164
13.	Ribbon fish	11563	1042	..	60	99	53	64	56	12937
14.	(a) <i>Caranx</i>	3075	420	85	262	167	90	82	218	4399
	(b) <i>Chorinemus</i>	6	47	16	67	4	2	3	..	145
	(c) <i>Trachinotus</i>	..	..	..	..	..	..	..	..	..
	(d) Other carangids	46	13	..	..	..	..	..	..	59
	(e) <i>Coryphaena</i>	95	12	22	9	..	..	..	..	138
	(f) <i>Elacate</i>	2	..	1	16	..	..	..	..	19
15.	(a) <i>Leiognathus</i>	486	1144	378	363	24	17	887	848	4147
	(b) <i>Gazza</i>	..	..	..	1	..	..	..	..	1
16.	Lactarius	95	607	11	67	21	8	1	51	861
17.	Pomfrets	95	129	3	158	157	62	96	207	907
18.	Mackerel	4783	1575	1880	4893	1375	837	1810	1321	18474
19.	Seer fish	801	1048	24	555	307	287	389	352	3763
20.	Tunnies	8102	930	145	1430	..	..	2	2	10611
21.	<i>Sphyrna</i>	296	5	1	28	..	..	..	..	330
22.	Mugil	..	31	80	38	..	..	1	1	151
23.	<i>Bregmaceros</i>	..	..	..	..	..	..	..	..	..
24.	Soles	108	2793	117	794	155	113	144	170	4394
25.	(a) Penaeid prawns	62	36633	5195	6532	896	517	952	1846	52633
	(b) Non-penaeid prawns	1718	24	..	..	..	..	..	..	1742
	(c) Lobsters	8	7	..	..	..	..	2	1	18
	(d) Crabs	22	18	8	194	3	15	42	24	326
	(e) <i>Squilla</i>	..	4151	48	2039	15	186	355	166	6960
26.	Cephalopods	1120	2248	7	541	229	82	..	15	4242
27.	Miscellaneous	870	4255	285	1081	579	201	101	122	7494
Total		49686	105019	24306	37863	12325	11407	22989	15426	279021

\*Provisional

## 2.12. Species-wise and Month-wise Marine Fish Landings in Kerala—1978\*

(Quantity in tonnes)

Sl. No.	Name of species	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Elasmobranchs	496	666	378	257	1354	974	235	614	309	3325	318	305
2.	Eels	33	3	..	1	..	1	..	..	1	..	..	1
3.	Cat Fishes	355	535	217	222	1964	1418	1785	222	851	1176	113	145
4.	Chirocentrus	38	135	2424	311	16	6	84	..	10	127	66	107
5.	(a) Oil Sardine	9843	5956	3370	3884	2541	867	1925	998	13913	16460	21008	33751
	(b) Other Sardine	123	709	179	2292	831	38	23	246	1680	909	319	4680
	(c) Hilsa Ilisha	..	..	2	..	84	1	..	18	77	..	..	..
	(d) Other Hilsa	122	6	..	..	..	..	29	..	..	..	3	10
	(e) Anchoviella	977	1099	2232	327	322	375	1161	1721	5437	7055	52	176
	(f) Thrissocles	159	116	95	31	90	..	71	1115	55	36	30	19
	(g) Other Clupeids	48	42	34	76	30	86	462	80	37	33	8	24
6.	(a) Harpodon Neherius	..	2	..	..	..	19	..	..	..	..	..	..
	(b) Saurida & Saurus	164	204	10	143	1324	299	379	2349	644	594	68	6
7.	Hemirhamphus & belone	62	23	5	133	3	..	1	..	..	37	7	17
8.	Flying Fish	..	..	..	..	..	..	..	..	..	..	..	..
9.	Perches	232	653	122	220	217	232	4580	15600	2152	2210	21	118
10.	Red Mullet	..	22	9	34	..	..	2	..	94	..	6	3
11.	Polynemids	1	2	1	..	6	2	..	..	19	2	..	..
12.	Sciaenids	258	670	1910	788	1109	972	2096	1404	3203	364	174	339
13.	Ribbon Fish	696	528	309	215	131	3072	5809	1007	11168	1523	79	10
14.	(a) Caranx	217	659	601	230	366	145	490	199	2024	776	764	633
	(b) Chorinemus	..	10	..	2	2	6	55	7	38	7	..	..
	(c) Trachynotus	6	5	8	..	..	..	..	..	..	..	..	..
	(d) Other Carangids	..	..	..	..	..	..	..	..	70	..	..	2
	(e) Coryphaena	..	5	10	..	1	..	..	..	..	3	..	..
	(f) Elacate	19	1	5	..	8	22	2	4	15	47	44	..
15.	(a) Leiognathus	176	573	44	254	154	376	97	954	129	30	60	215
	(b) Gazza	..	..	..	..	..	..	..	..	..	..	..	..
16.	Lactarius	14	30	6	48	74	138	739	61	357	48	9	2
17.	Pomfrets	245	254	212	32	113	105	33	155	33	209	95	144
18.	Mackerel	1824	2500	3183	1734	660	441	239	47	8582	2120	1037	1876
19.	Seer Fish	292	319	36	68	162	81	73	224	338	801	368	529
20.	Tunnies	118	586	306	438	1615	600	927	214	413	550	360	428
21.	Sphyraena	11	20	59	117	39	20	172	15	53	82	78	71
22.	Mugil	..	..	..	..	..	1	..	..	..	..	..	..
23.	Bregmaceros	..	..	..	..	..	..	..	..	..	9	..	..
24.	Soles	178	533	770	416	870	1378	1397	785	516	376	105	139
25.	(a) Penaeid prawns	872	957	3393	1575	4449	5636	17079	7094	3130	335	287	604
	(b) Nonpenaeid prawn	23	9	91	49	21	17	134	52	..	..	..	..
	(c) Lobster	1	9	..	1	..	..	..	9	19	20	1	5
	(d) Crabs	511	393	287	107	46	8	5	..	146	159	665	284
26.	Cephalopods	130	484	85	10	109	44	..	232	3589	1621	261	100
27.	Miscellaneous	1779	1333	1317	1549	2816	1568	1136	481	2630	3143	220	458
Total		20023	20051	21710	15564	21519	18948	41220	35907	61732	44187	26626	45222

Source: C.M.F.R.I.

\*Provisional figures.



## 2.13. Quarterly Marine Fish Landings in Kerala—1979\*

(in tonnes)

<i>Name of Fish</i>	<i>January to March</i>	<i>April to June</i>	<i>July to September</i>	<i>October to December</i>	<i>Total</i>
Elasmobranchs	1925	1277	2502	1562	7266
Eels	26	2	2	5	35
Cat fishes	665	3566	4926	2219	11376
Chirocentrus	179	483	34	438	1134
Oil Sardine	19043	10584	25404	53806	108927
Other sardines	1290	2733	1193	10316	15532
Hilsa ilisha	..	..	..	6	6
Other Hilsa	..	33	2	..	35
Anchoviella	2155	1529	462	2413	5559
Thrissocles	129	292	1218	137	1776
Other clupeids	23	316	245	61	645
Harpodon nehereus	1	..	..	..	1
Saurida & Saurus	194	1012	3625	576	5407
Hemirhamphus & Belone	116	19	33	76	244
Flying Fish	..	..	..	..	..
Perches	2215	531	17370	481	20597
Red mullets	126	..	..	1	127
Polynemids	26	1	..	3	30
Seiaenids	1860	1403	1308	1098	5669
Ribbon fish	218	2537	20765	2297	25817
Caranx	1576	1071	8824	1422	12893
Chorinemus	27	16	51	33	127
Trachynotus	..	..	..	..	..
Other carangids	..	..	..	..	..
Coryphaena	40	7	..	..	47
Elacate	34	6	13	84	137
Leiognathus	1097	1230	1159	377	3863
Gazza	..	..	..	..	..
Lactarius	22	141	88	22	273
Pomfrets	651	268	608	355	1882
Mackerel	6560	9853	500	1401	18314
Seer fish	865	174	1513	3589	6141
Tunnies	1162	10342	2902	1271	15677
Sphyracna	193	141	33	202	509
Mugil	30	..	3	6	39
Bregmaceros	..	..	..	..	..
Soles	1429	692	2298	432	4851
Penaeid prawns	7059	5843	14331	2522	29755
Non-penaeid prawns	16	8	42	..	66
Other crustaceans	1980	1102	421	4075	7570
Cephalopods	167	146	1799	808	2920
Miscellaneous	3902	3237	1103	991	9233
Total	56941	60595	114867	93085	325488

Source: C.M.F.R.I.

\*Provisional figures

## 2.14. Quarterly Marine Fish Production in Kerala—1980\*

Sl. No.	Name of fish	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Elasmobranchs	1992	1332	1668	1761	6753
2.	Eels	3	..	1	2	6
3.	Cat fishes	943	5110	5104	2626	13783
4.	Chirocentrus	478	143	26	355	1002
5.	(a) Oil Sardine	23766	14401	5952	25548	69667
	(b) Lesser Sardine	2642	1586	2147	4642	11017
	(c) Hilsa ilisha	14	..	..	..	14
	(d) Other hilsa	3	18	..	..	21
	(e) Anchoviella	1606	1174	2123	2869	7772
	(f) Thrissocles	135	939	1013	154	2241
	(g) Other clupeids	142	190	223	19	574
6.	(a) Harpodon Neherua	..	..	..	..	..
	(b) Saurida & Saurus	558	2112	3317	1093	7080
7.	Hemirhamphus & Belone	160	26	2	173	361
8.	Flying Fish	..	..	..	..	..
9.	Perches	905	1247	15246	408	17806
10.	Red mullets	..	..	..	1	1
11.	Polynemids	..	6	..	2	8
12.	Sciaenids	1877	1659	1976	652	6164
13.	Ribbon Fish	48	1175	11577	137	12937
14.	(a) Caranx	712	580	1547	1560	4399
	(b) Chorinemus	74	3	56	12	145
	(c) Trachynotus	..	..	..	..	..
	(d) Other carangids	..	5	41	13	59
	(e) Coryphaena	108	16	..	14	138
	(f) Elacate	5	2	5	7	19
15.	(a) Leiognathus	907	590	2459	191	4147
	(b) Gazza	1	..	..	..	1
16.	Lactarius	84	127	618	32	861
17.	Pomfrets	82	230	119	476	907
18.	Mackerel	3852	6074	2203	6345	18474
19.	Seer fish	1112	571	359	1721	3763
20.	Tunnies	1111	8479	329	692	10611
21.	Sphyracna	41	135	33	121	330
22.	Mugil	20	31	20	80	151
23.	Bregmaceros	..	..	..	..	..
24.	Soles	899	1099	1757	639	4394
25.	(a) Penaeid Prawns	4839	12391	33494	1909	52633
	(b) Non-penaeid prawns	29	442	1256	15	1742
	(c) Lobsters	9	1	7	1	18
	(d) Crabs	79	217	6	24	326
	(e) Squilla	1653	2890	..	2417	6960
26.	Cephalopods	835	228	1561	1618	4242
27.	Miscellaneous	1628	3225	1505	1136	7494
Total:		53352	68454	97750	59465	279021

Source: C.M.F.R.I.

\* Provisional

## 2.15. Species-wise variation in Marine Fish Landings of Kerala 1978 and 1979

(Quantity in M.T.)

Sl. No.	Name of fish	1978	1979	Variation in landings	Variation in Percentage
(1)	(2)	(3)	(4)	(5)	(6)
1.	Elasmobranchs	9302	6954	(-) 2348	(-) 25.24
2.	Eels	38	10	(-) 28	(-) 73.68
3.	Cat fishes	9125	11328	(+) 2203	(+) 24.14
4.	Chirocentrus	1298	1125	(-) 173	(-) 13.33
5.	(a) Oil Sardine	119937	116834	(-) 3103	(-) 2.59
	(b) Lesser Sardines	11713	15914	(+) 4201	(+) 35.87
	(c) Hilsa Ilisha	182	6	(-) 176	(-) 96.70
	(d) Othe Hilsa	69	36	(-) 33	(-) 47.83
	(e) Anchoviella	21203	6552	(-) 14651	(-) 69.10
	(f) Thrissocles	1898	1789	(-) 109	(-) 5.74
	(g) Other clupeids	973	674	(-) 299	(-) 30.75
6.	(a) Harpodon Nchereus	21	1	(-) 20	(-) 95.24
	(b) Saurida & Saurus	7246	5326	(-) 920	(-) 14.73
7.	Hemirhamphus & Belone	281	257	(-) 24	(-) 8.54
8.	Flying Fish	..	..	..	..
9.	Perches	24989	20239	(-) 4750	(-) 19.01
10.	Red Mullet	171	127	(-) 44	(-) 25.73
11.	Polynemids	35	29	(-) 6	(-) 17.14
12.	Sciaenids	13045	5237	(-) 7808	(-) 59.85
13.	Ribbon fish	24207	25718	(+) 1511	(+) 6.24
14.	(a) Caranx	7197	12339	(+) 5142	(+) 71.45
	(b) Chorinemus	148	128	(-) 20	(-) 13.51
	(c) Trachynotus	19	..	(-) 19	(-) 100.00
	(d) Other carangids	72	..	(-) 72	(-) 100.00
	(e) Coryphaena	19	48	(+) 29	(+) 152.63
	(f) Elacate	166	120	(-) 46	(-) 27.71
15.	(a) Leiognathus	3040	3597	(+) 557	(+) 18.32
	(b) Gazza	..	..	..	..
16.	Lactarius	1533	253	(-) 1280	(-) 83.50
17.	Pomfrets	1614	1737	(-) 123	(+) 7.62
18.	Mackerel	25917	18585	(-) 7332	(-) 28.29
19.	Seer fish	3354	6275	(+) 2921	(+) 87.09
20.	Tunnies	6548	15391	(+) 8843	(+) 135.05
21.	Sphyræna	721	477	(-) 244	(-) 33.84
22.	Mugil	1	39	(+) 38	(+) 3800.00
23.	Bregmaceros	..	..	..	..
24.	Soles	7276	4487	(-) 2789	(-) 38.33
25.	(a) Penacid prawns	45034	29522	(-) 15512	(-) 34.45
	(b) Non-penacid prawns	394	75	(-) 319	(-) 80.96
	(c) Lobsters	38	26	(-) 12	(-) 31.58
	(d) Crabs & other Crustaceans	2176	7643	(+) 5467	(+) 251.24
26.	Cephalopods	6516	2976	(-) 3540	(-) 54.33
27.	Miscellaneous	16823	8635	(-) 8188	(-) 48.67
Total		373339	330509	(-) 42830	(-) 11.47

2.16. Species-wise Marine Fish landings in Kerala—1979 to 1979 Expressed as indices with 1973 Landings as Base

Sl. No.	Name of Fish	1973	1974	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Elasmobranchs	100	117	116	83	65	105	79
2.	Eels	100	1633	400	333	200	1267	333
3.	Cat fishes	100	192	187	73	46	52	65
4.	Chirocentrus	100	158	111	148	101	239	207
5.	(a) Oil Sardine	100	83	79	101	96	98	95
	(b) Lesser Sardines	100	50	54	55	33	19	25
	(c) Hilsa Ilisha	..	..	..	..	..	..	..
	(d) Other Hilsa	100	85	..	..	36	177	92
	(e) Anchoviella	100	218	128	112	113	237	73
	(f) Thrissocles	100	79	98	164	99	114	108
	(g) Other clupeids	100	114	86	101	44	84	58
6.	(a) Harpodon nehereus	100	40	..	..	..	47	2
	(b) Saurida & Saurus	100	778	994	9	455	550	469
7.	Hemirhamphus & Belone	100	179	150	76	152	152	139
8.	Flying fish	100	200	..	100	..	..	..
9.	Perches	100	242	170	35	163	288	234
10.	Red Mullet	100	253	1	168	16	11	8
11.	Polynemids	100	1	18	21	12	6	5
12.	Sciaenids	100	79	143	59	102	111	45
13.	Ribbon fish	100	126	64	32	31	101	108
14.	(a) Caranx	100	37	50	73	110	50	86
	(b) Chorinemus	100	150	281	552	1125	308	267
	(c) Trachynotus	..	..	..	..	..	..	..
	(d) Other Carangids	100	203	236	17	217	200	..
	(e) Coryphaena	100	61	40	37	18	12	..
	(f) Elacate	100	67	119	204	304	319	231
15.	(a) Leiognathus	100	95	28	15	42	17	20
	(b) Gazza	100	125	..	..	..	..	..
16.	Lactarius	100	44	15	7	12	23	4
17.	Pomfrets	100	83	65	44	205	89	96
18.	Mackerel	100	52	75	101	101	131	94
19.	Seer fish	100	290	241	351	192	198	371
20.	Tunnies	100	220	217	477	248	243	570
21.	Sphyracna	100	166	17	21	15	31	20
22.	Mugil	100	927	72	25	37	1	38
23.	Bregmaceros	..	..	..	..	..	..	..
24.	Soles	100	149	81	42	68	85	52
25.	(a) Penaeid prawns	100	71	91	41	47	53	35
	(b) Non-penaeid prawns	100	103	77	6	18	40	8
	(c) Lobsters	..	..	..	..	..	..	..
	(d) Crabs and other crustaceans	100	162	103	77	262	124	431
26.	Cephalopods	100	642	986	257	1467	1922	878
27.	Miscellaneous	100	117	358	187	215	139	71
Total		100	94	94	74	77	83	74

**2.17. Annual trend in prawn landings by mechanised boats at Sakthikulangara-Neendakara in relation to total catch and fishing effort (1970-79)**

<i>Year</i>	<i>Total catch in tonnes</i>	<i>Total effort in hours</i>	<i>Prawn catch in tonnes</i>	<i>CPUE for prawns in Kg/hour</i>	<i>Percentage of prawn in total catch</i>
1970	26704	146185	1845	12.6	6.9
1971	51493	276476	11004	39.8	21.4
1972	23622	383227	11267	29.4	47.7
1973	66064	550370	45477	82.6	68.8
1974	77748	823719	27764	33.7	35.7
1975	151095	1331728	56750	42.6	37.6
1976	29836	536897	14993	27.9	50.2
1977	45828	1336732	24121	18.0	52.6
1978	89892	2413475	33143	13.7	36.8
1979	56016	723730	14582	20.1	26.0

CPUE—Catch per unit efforts  
Source: C.M.F.R.I.

**2.18. Percentage composition of catches by mechanised boats at Neendakara in total mechanised fishing in Kerala (1973-79) (in tonnes)**

<i>Year</i>	<i>Total catch of Mechanised boats in Kerala</i>	<i>Total catch of Mechanised boats in Neendakara</i>	<i>Percentage</i>
1973	93659	66064	70.54
1974	101412	77748	76.67
1975	180111	151095	83.99
1976	58717	29836	50.81
1977	107424	45228	42.66
1978	117356	89892	76.60
1979	95191	56016	58.85

Source: C.M.F.R.I.



## 2.19. Monthly catch trend of prawns at Sakthikulangara-Neendakara during 1973-79

Months	Prawn landings in tonnes and CPUE in kg. (in Parenthesis)						
	1973	1974	1975	1976	1977	1978	1979
January	253.2 (7.9)	130.6 (5.7)	429.1 (7.6)	132.4 (4.9)	197.6 (6.1)	440.0 (2.3)	73.0 (3.7)
February	329.5 (11.2)	235.2 (9.2)	241.0 (5.3)	327.1 (10.3)	172.2 (4.2)	178.0 (0.9)	96.0 (4.0)
March	222.3 (7.5)	163.8 (5.5)	388.9 (5.3)	157.8 (8.6)	242.6 (1.7)	410.0 (2.6)	405.0 (15.5)
April	483.9 (16.3)	745.7 (12.8)	868.9 (10.1)	379.0 (14.2)	117.7 (2.9)	457.0 (1.9)	186.0 (4.8)
May	2697.6 (34.9)	920.4 (12.0)	4661.2 (22.5)	1271.6 (12.2)	128.2 (2.7)	3196.0 (8.8)	564.0 (6.5)
June	3202.8 (73.0)	1283.0 (16.1)	2109.5 (13.1)	665.0 (18.9)	241.9 (6.8)	4850.0 (8.0)	900.0 (22.3)
July	12652.2 (197.1)	235.2 (7.2)	13806.7 (50.0)	685.1 (50.3)	3334.3 (25.7)	16068.0 (80.2)	9313.0 (71.8)
August	22987.1 (298.6)	10140.7 (111.4)	31722.2 (148.8)	9768.2 (104.1)	7949.8 (42.6)	6856.0 (37.1)	2064.0 (15.7)
September	703.8 (15.7)	7038.9 (52.2)	312.7 (7.8)	419.8 (8.1)	9763.8 (45.5)	244.0 (1.9)	507.0 (5.9)
October	88.5 (3.2)	5800.1 (49.5)	1934.0 (28.1)	433.3 (9.6)	505.1 (3.1)	24.1 (0.5)	152.0 (2.5)
November	934.9 (26.4)	365.7 (4.7)	42.0 (0.7)	472.1 (8.1)	580.2 (5.4)	244.1 (4.8)	180.0 (3.6)
December	921.5 (15.4)	705.3 (9.0)	233.9 (5.1)	281.6 (8.9)	887.8 (4.4)	176.0 (3.3)	142.0 (4.6)
Total (Average)	45477.3 (82.6)	27764.6 (33.7)	56750.1 (42.6)	14993.0 (27.9)	24121.3 (18.0)	33143.0 (13.7)	14582.0 (20.1)

Source: C.M.F.R.I., Cochin.

## 2.20. State-wise Marine Fish Landings in India (in tonnes) (1975-79)

Sl. No.	State	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	West Bengal	45761	25411	6689	12754	10744
2.	Orissa	*	29823	15072	39670	51808
3.	Andhra Pradesh	155638	131321	100756	82116	91426
4.	Tamil Nadu	221215	226078	206046	212899	235008
5.	Pondicherry	8150	10123	6462	6828	10068
6.	Kerala	420836	331047	345037	373339	330509
7.	Karnataka	87494	95283	97152	152860	126384
8.	Goa	29170	34968	24731	27111	25388
9.	Maharashtra	256619	293601	264452	284244	293326
10.	Gujarat	193775	171294	189638	201929	191312
11.	Andamans	1104	1334	1532	7077	1721
12.	Lakshadweep	2931	2572	2215	2780	3846
13.	Private Trawlers	..	..	..	..	16840
Total		1422693	1352855	1259782	1403607	1388380

\* Landings of West Bengal and Orissa together is given against West Bengal.

Source: C. M. F.R.I.

## 2.21. State-wise Share (%) in India's Marine Fish Landings (1975-79)

Sl. No.	States	1975	1976	1977	1978	1979
1.	West Bengal & Orissa	3.22	4.08	1.73	3.73	4.51
2.	Andhra Pradesh	10.94	9.11	8.00	5.85	6.59
3.	Tamil Nadu	15.55	16.71	16.36	15.17	16.93
4.	Pondicherry	0.57	0.75	0.51	0.49	0.73
5.	Kerala	29.58	24.47	27.37	26.60	23.80
6.	Karnataka	6.15	7.04	7.71	10.89	9.10
7.	Maharashtra	18.04	21.70	20.99	20.25	21.12
8.	Gujarat	13.62	12.66	15.05	14.39	13.78
9.	Andamans	0.08	0.10	0.12	0.50	0.12
10.	Lakshadweep	0.20	0.19	0.18	0.20	0.28
11.	Goa	2.05	2.59	1.96	1.93	1.83
12.	Private Trawlers	..	..	..	..	1.21
	Total	100.00	100.00	100.00	100.00	100.00

## 2.22. State-wise Share (%) in India's Shrimp Landings (1975-79)

Sl. No.	States	1975	1976	1977	1978	1979
1.	West Bengal and Orissa	2.58	2.94	0.99	2.16	2.02
2.	Andhra Pradesh	4.84	5.80	6.67	5.32	6.65
3.	Tamil Nadu	5.45	4.72	4.90	7.73	6.26
4.	Pondicherry	0.03	0.05	0.06	0.18	0.34
5.	Kerala	35.32	18.04	23.66	25.26	16.67
6.	Karnataka	1.39	1.35	1.96	4.69	2.62
7.	Maharashtra	42.43	54.58	54.94	47.45	57.35
8.	Gujarat	7.15	10.07	5.94	6.13	6.73
9.	Andamans	0.01	0.02	0.03	0.15	0.04
10.	Lakshadweep	0.00	0.00	0.00	0.00	0.00
11.	Goa	0.80	2.43	0.85	0.93	0.90
12.	Private Trawlers	0.00	0.00	0.00	0.00	0.42
	Total	100.00	100.00	100.00	100.00	100.00

## 2.23. Main Pelagic and Demersal Group of fishes in Kerala

Group of fishes	Species
(1)	(2)
Pelagic	Chirocentrus, Oil Sardine, Other Sardine, Hilsa ilisha, Other Hilsa, Anchovies and white baits, other clupeids, Bombay duck, Harpodon nehereus, Hemirhamphus & Belone, Flying fish, Ribbon fish, Carangids, Mackerel, Sea Fish, Tunnies, Sphyraene, Mulletts, Mugil and Bregmaceros.
Demersal	Elasmobranchs, Eels, Cat fishes, Lizard fishes, Perches, Red mullets, Polynemids, Sciaenids, Silver bellies, Lactarius, Pomfrets, soles, Prawns, Lobsters and cephalopods.

Source: C.M.F.R.I.

## 2.24. Availability with location and season of different species of shrimps in India

Sl. No.	Variety	Maximum size in mm.	Majority size range in mm.	Region	Season
1.	Karikadi	142	81-90	W. Coast	May-June & September-October
2.	Poovalan	130	86-95	South West coast and East coast	October to June
3.	Kazhandan	180	120-130	East coast	November-December & May-June
4.	Naran	220	136-145	West coast East Coast	December-February
5.	Karachemmeen	250	170-180	West Coast East Coast	Through out the fishing season
6.	Other species	..	..	North West and North East Coast	..

Source: M.P.E.D.A.

## 2.25. State-wise Distribution of Pelagic and Demersal Group of Fishes in India during 1978 (in tonnes)

Sl. No.	State	Pelagic	Demersal	Total
(1)	(2)	(3)	(4)	(5)
1.	West Bengal	6769	5985	12754
2.	Orissa	18669	21001	39670
3.	Andhra Pradesh	39941	42175	82116
4.	Tamil Nadu	96411	116488	212899
5.	Pondicherry	3949	2879	6828
6.	Kerala	236604	136735	373339
7.	Karnataka	122945	29915	152860
8.	Goa	15936	11175	27111
9.	Maharashtra	114847	169397	284244
10.	Gujarat	105542	96387	201929

**2.26. State-wise distribution of Pelagic and Demersal group of Fishes in India  
during 1979 (in tonnes)**

<i>Sl. No.</i>	<i>State</i>	<i>Pelagic</i>	<i>Demersal</i>	<i>Total</i>
(1)	(2)	(3)	(4)	(5)
1.	West Bengal	6419	4325	10744
2.	Orissa	23133	38675	51808
3.	Andhra Pradesh	42049	49377	91426
4.	Tamil Nadu	112923	122085	235008
5.	Pondicherry	5795	4273	10068
6.	Kerala	228272	102237	330509
7.	Karnataka	97889	28495	126384
8.	Goa	15830	9558	25388
9.	Maharashtra	107224	186102	293326
10.	Gujarat	104476	86836	191312
11.	Andamans	1143	576	1721
12.	Lakshadweep	3198	648	3846
13.	Private Trawlers	..	16840	16840
Total		748353	640027	1388380

Source: C.M.F.R.I.



2.27. State-wise Marine Fish Landings in India during 1975 (in tonnes)

Sl. No.	Name of Fish	West Bengal & Orissa	Andhra	Tamil Nadu	Pondicherry	Kerala	Karnataka	Goa	Maharashtra	Gujarat **	Andamans	Lakshadweep	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Elasmobranchs	1450	9977	20614	129	10292	1726	572	8167	11930	48	325	65230
2.	Eels	4	1837	110	4	12	81	64	1101	2497	..	..	5710
3.	Cat fishes	3383	9824	7469	55	32603	3222	1367	8236	2514	15	1	68689
4.	Chirocentrus	687	2920	1811	50	605	412	32	2936	2325	35	..	11813
5.	(a) Oil Sardines	..	131	..	..	97183	52701	7526	1699	..	..	..	159240
	(b) Other sardines	957	32994	35610	1046	33652	775	3914	3103	..	66	..	112117
	(c) Hilsa ilisha	5254	70	121	31	10	1	..	16	3394	..	..	8897
	(d) Other Hilsa	181	930	1158	277	..	10	..	1152	3846	13	..	7567
	(e) Anchoviella	207	7037	10873	412	11432	10	31	533	130	79	..	30744
	(f) Thrissocles	1608	1776	3127	337	1638	344	123	927	117	..	..	9997
	(g) Other clupeids	3436	7536	5406	50	998	568	419	21172	13192	9	..	52786
6.	(a) Harpodon nehereus	3043	359	1	..	..	2	10	51645	44554	..	..	99614
	(b) Saurida & Saurus	6	242	1026	44	11294	75	151	218	1267	..	..	14323
7.	Hemirhamphus & Belone	5	24	1482	55	278	36	..	52	3	16	29	1980
8.	Flying fish	..	1	1657	142	..	..	..	2	..	..	30	1832
9.	Perches	201	4888	8153	389	14741	727	45	2,484	3261	157	186	35,232
10.	Red mullets	14	721	1566	100	23	3	77	103	..	..	34	2,641
11.	Polynemids	224	1,836	1339	14	105	3	63	1,628	8,832	..	..	14044
12.	Sciaenids	4474	11,682	10,096	212	16811	1853	3048	20,576	45,781	..	2	114535
13.	Ribbon Fish	1252	11,701	17782	314	15175	219	355	9435	1097	..	..	57,330
14.	(a) Caranx	237	3498	6225	610	7190	746	1078	2240	1012	108	61	23005
	(b) Chorinemus	165	1790	1090	..	135	55	..	145	..	..	..	3380
	(c) Trachynotus	..	6	..	..	6	49	..	3	..	..	..	64
	(d) Other carangids	2	6	8	..	85	92	..	..	14	..	..	207
	(e) Coryphaena	..	251	65	..	61	23	..	11	..	..	..	411
	(f) Elacate	1	25	87	..	62	31	..	15	..	..	..	221
15.	(a) Leiognathus	352	11268	20142	511	5211	1240	604	200	..	80	5	39813
	(b) Gazza	..	101	29	..	..	..	..	293	1	..	..	424
16.	Lactarius	6	2513	1822	30	983	495	189	431	5379	..	..	11848
17.	Pomfrets	2501	5697	1303	13	1181	213	102	8351	5612	14	..	24987
18.	Mackerel	116	1593	5826	2259	14930	12469	6779	1860	115	..	..	45947
19.	Seer fish	554	5227	4100	23	4065	776	222	1850	1879	85	66	18897
20.	Tunnies	16	664	1785	..	5845	212	2	274	546	9	1932	11285
21.	Sphyræna	3	119	1506	27	396	14	..	17	26	25	17	2150
22.	Mugil	44	954	1566	31	74	8	124	30	600	84	..	3515
23.	Bregmaceros	..	..	..	..	..	..	..	1,043	..	..	..	1,043
24.	Soles	30	305	785	125	6932	373	16	487	2991	..	..	12,044
25.	(a) Penaeid prawns	2,920	7,152	11,460	62	77,207	3,074	1762	24653	13395	28	..	141713
	(b) Non-penaeid prawns	2,787	3523	573	2	755	..	..	69,012	2386	..	..	79038
	(c) Lobsters	..	102	465	25	31	12	6	245	2105	..	..	2991
	(d) Crabs & other Crustaceans	8	605	13896	260	1797	2,540	227	550	10	..	..	19,893
26.	Cephalopods	2	151	29,53	58	3,342	175	96	482	611	..	19	7,889
27.	Miscellaneous	9431	3552	16,128	453	43696	2129	166	9242	12468	118	224	97607
Total		45761	155638	221215	8150	420836	87494	29170	256619	193775	1104	2931	1422693

\*\* Exclusive of the catches by the Gujarat boats landed at Satpati (Maharashtra) which are included in the estimates of Maharashtra State.

## 2.28. Estimates of Marine Fish Landings in India during 1976

(Figures in tonne)

Sl. No.	Name of Fish	West Bengal	Orissa	Andhra Pradesh	Tamil Nadu	Pondicherry	Kerala	Karnataka	Goa	Maharashtra	Gujarat	Andamans	Lakshadweep	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1.	Elasmobranchs	493	2974	6688	19039	165	7308	1489	1038	7089	7896	72	354	54605
2.	Eels	1	1	205	620	6	10	..	1	4168	3283	1	..	8296
3.	Cat fishes	785	1988	6131	5033	66	12743	4279	834	9522	2140	19	..	43540
4.	Chirocentrus	251	517	1837	2058	63	807	184	54	2409	2155	33	..	10368
5.	(a) Oil Sardine	..	..	112	..	..	123937	41451	1385	2377	..	..	..	169262
	(b) Lesser sardines	12	1657	23220	25169	1839	34305	641	11100	1963	8	86	..	100000
	(c) Hilsa ilisha	799	5477	280	22	..	12	..	..	154	1098	..	..	7842
	(d) Other Hilsa	..	129	1815	2331	121	..	30	..	661	3367	28	..	8482
	(e) Anchoviella	6	339	11309	7869	178	9987	54	..	209	..	118	..	30069
	(f) Thrissocles	1397	106	1763	8362	565	2732	900	290	1276	269	..	..	17660
	(g) Other clupeids	1790	772	8410	15851	1	1174	457	667	16944	11098	..	..	57164
6.	(a) Harpodon nehereus	2253	87	214	..	..	..	7	46	49470	34998	..	..	87075
	(b) Saurida & Saurus	..	1	166	823	105	99	187	25	1089	2797	..	..	5292
7.	Hemirhamphus & Belone	..	1	14	717	2	141	87	8	30	101	35	33	1169
8.	Flying fish	..	..	..	1232	165	1	..	..	..	..	..	41	1439
9.	Perches	1	31	1751	5341	769	3069	454	310	1460	4641	142	193	18162
10.	Red Mullet	..	1	553	626	77	2577	145	..	497	680	2	58	5216
11.	Polynemids	69	244	1813	1944	26	122	..	..	4125	6230	..	..	14573
12.	Sciaenids	4066	333	10891	10562	434	6955	3216	2640	19781	28698	5	..	87581
13.	Ribbon fish	701	130	12443	19054	428	7687	583	1123	10052	12341	..	..	64542
14.	(a) Caranx	..	147	3047	7082	501	10478	656	794	1179	1642	125	94	25745
	(b) Chorinemus	37	237	1820	646	2	265	80	100	121	14	..	..	3322
	(c) Trachynotus	..	..	1	28	..	..	..	3	3	..	..	..	35
	(d) Other carangids	..	..	5	907	..	6	..	..	654	..	..	..	1572
	(e) Coryphaena	..	2	89	105	7	56	..	..	2	..	..	..	261
	(f) Elacate	..	..	14	217	..	106	32	..	..	14	..	..	383
15.	(a) Leiognathus	219	378	3876	29664	482	2727	4086	896	..	..	117	..	42445
	(b) Gazza	..	1	48	6	..	..	..	3	..	908	..	..	966
16.	Lactarius	..	1	1718	175	121	468	216	338	643	7765	..	..	12045
17.	Pomfrets	586	10699	4088	822	44	799	438	100	17979	2116	30	..	37701
18.	Mackerel	..	425	2084	10488	1598	19978	22455	6448	1944	..	77	..	65497
19.	Seer fish	287	940	3412	3784	28	5936	1341	501	2116	1634	93	87	20159
20.	Tunnies	..	84	334	2923	1	12880	576	23	463	734	13	1291	19322
21.	Sphyræna	..	1	187	1554	15	494	9	..	50	9	49	20	2388
22.	Mugil	2	5	892	285	4	26	6	4	191	1097	101	..	2613
23.	Bregmaceros	..	..	..	..	..	..	..	..	380	..	..	..	380
24.	Soles	..	6	56	909	254	3567	637	137	1553	2969	..	..	10088
25.	(a) Penacid prawns	2139	688	8833	8864	93	34478	2594	4643	40772	11497	39	..	114640
	(b) Non-penacid prawns	2708	100	2276	169	..	55	..	..	63702	7778	..	..	76787
	(c) Lobsters	..	..	3	525	33	50	8	3	419	1491	..	..	2532
	(d) Other crustaceans	..	23	329	16413	516	1316	156	971	51	224	..	..	19999
26.	Cephalopods	..	27	242	1451	211	872	3067	142	2488	2286	..	40	10826
27.	Miscellaneous	6809	1271	8353	11808	1203	22824	4762	341	25615	7316	149	361	90812
Total		25411	29823	131321	226078	10123	331047	95283	34968	293601	171294	1334	2572	1352855

(In tonnes)

Sl. No.	Name of fish	West Bengal	Orissa	Andhra Pradesh	Tamil Nadu	Pondicherry	Kerala	Karnataka	Goa	Maharashtra	Gujarat	Andaman & Nicobar	Lakshadweep	Total	Total for 1976
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1.	Elasmobranchs	73	1658	6450	18327	352	5796	3238	625	7746	17565	90	296	62216	54605
2.	Eels	1	..	438	232	5	6	3	..	3849	8463	..	..	12997	8296
3.	Catfishes	134	1035	5662	15205	137	7947	5162	918	8318	8958	28	..	53504	43540
4.	Chirocentrus	107	752	1217	2475	63	547	717	32	2634	3327	38	..	11909	10368
5.	(a) Oil sardines	..	..	..	714	..	117356	31145	807	108	..	..	..	150130	169262
	(b) Lesser sardines	..	1227	10972	26259	1156	20754	180	4066	1024	..	86	..	65724	100000
	(c) Hilsa illisha	96	2948	41	343	..	36	44	..	352	329	..	..	4189	7842
	(d) Other Hilsa	..	492	1654	5784	43	14	113	1	978	5547	25	..	14651	8482
	(e) Anchoviella	4	486	8947	13388	548	10105	174	9	269	..	103	..	34033	30069
	(f) Thriassocles	365	197	1398	3008	405	1648	831	293	1679	105	..	..	9929	17660
	(g) Other clupeids	705	778	2363	2652	..	512	1677	520	22782	9458	11	..	41458	57164
6.	(a) Harpodon nehereus	1060	86	960	14	..	..	4	20	50803	32289	..	..	85236	87075
	(b) Saurida & Saurus	..	5	875	572	103	5169	385	239	1135	42	..	..	8525	5292
7.	Hemirhamphus & Belone	..	..	135	1574	4	281	57	13	32	104	53	58	2311	1169
8.	Flying fish	..	..	84	526	3	..	..	..	..	..	..	30	643	1439
9.	Perches	..	55	2727	7918	391	14121	1489	505	2973	1213	196	211	31799	18162
10.	Red mullets	..	1	315	832	32	240	19	..	171	779	4	29	2422	5216
11.	Polynemids	25	406	698	1592	5	69	3	1	862	268	..	..	3929	14573
12.	Sciaenids	819	312	10182	13756	258	11965	2762	2779	17086	39968	..	..	99887	87581
13.	Ribbon fish	306	174	8546	4594	143	7440	237	449	6338	14180	..	..	42407	64542
14.	(a) Caranx	..	103	4003	6120	490	15673	760	1149	1167	1002	134	65	30666	25745
	(b) Chorinemus	12	386	530	1465	5	540	506	44	230	401	..	..	4119	3322
	(c) Trachynotus	..	..	..	73	..	7	..	..	..	..	..	..	80	35
	(d) Other carangids	..	..	78	22	..	78	41	..	..	..	..	..	219	1572
	(e) Coryphaena	..	1	137	58	2	28	..	..	..	..	..	..	226	261
	(f) Elacate	..	9	7	230	1	158	1	23	..	..	..	..	429	383

15. (a) Leiognathus	15	233	5903	17783	318	7708	1631	458	358	..	97	..	34504	42445
(b) Gazza	..	..	..	54	7	..	..	..	..	..	..	..	61	966
16. Lactarius	1	18	1132	740	175	823	101	375	247	7349	..	..	10961	12045
17. Pomfrets	143	1018	2529	628	53	3712	249	296	17295	9174	30	..	35127	37701
18. Mackerel	..	195	1040	5674	398	19968	26214	7661	875	..	111	..	62136	65497
19. Seer fish	32	672	3261	6424	34	3250	1831	213	3220	2022	119	41	21119	20159
20. Tunnies	..	37	449	3238	..	6705	622	107	312	332	37	1166	13005	19322
21. Sphyræna	..	3	108	1702	9	353	3	..	..	154	76	15	2423	2385
22. Mugil	..	..	170	923	14	38	..	46	48	900	130	..	2269	2613
23. Bregmaceros	..	..	..	..	..	..	..	..	30	..	..	..	30	380
24. Soles	..	72	680	908	78	5778	985	335	1245	729	..	..	10810	10088
25. (a) Penaeid prawns	602	802	6266	8197	103	40150	335	1436	26675	8861	45	..	96472	114640
(b) Non-penaeid prawns	269	17	5109	159	2	174	..	24	66978	1260	..	..	73992	76787
(c) Lobsters	..	..	2	286	20	40	4	7	434	424	..	..	1217	2532
(d) Crabs	..	6	719	11018	296	4621	144	361	93	2471	..	..	19729	19999
(e) Other crustaceans	..	..	..	..	..	..	63	276	..	..	..	..	339	..
26. Cephalopods	..	..	408	1375	62	4973	965	164	596	1439	..	23	10005	10826
27. Miscellaneous	1920	888	4561	19204	747	26254	11457	479	15510	10525	119	281	91945	90812
Total	6689	15072	100756	206046	6462	345037	67152	24731	264452	189638	1532	2215	1259782	1352855

## 2.30 State-wise Composition of Marine Fish Landings in India during 1978

(in tonnes)															
S. No.	Name of fish	West Bengal	Orissa	Andhra-pradesh	Tamil Nadu	Pondicherry	Kerala	Karnataka	Goa	Maharashtra	Gujarat	Andamans	Lakshadweep	Total	Total for 1977
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1.	Elasmobranchs	125	3386	8704	15121	199	9302	2051	863	10072	11511	89	198	61621	62216
2.	Eels	..	3	1082	325	..	38	8	55	5384	1886	..	..	8781	12997
3.	Catfishes	151	1794	3281	5252	168	9125	2831	1356	11081	4159	33	..	39231	53504
4.	Chirocentrus	217	1073	1262	1736	111	1298	247	78	3059	1869	40	..	10990	11909
5.	(a) Oilsardine	..	..	..	36	..	119937	46707	1398	..	..	..	..	168078	150130
	(b) Other sardines	4	2514	7685	21050	1184	11713	2572	5151	868	..	97	..	52838	65724
	(c) Hilsa ilisha	193	7737	2	161	..	182	9	3	1558	49	..	..	9894	4189
	(d) Other Hilsa	28	848	1349	4166	108	69	30	2	466	5703	31	..	12800	14651
	(e) Anchoviella	24	1169	7810	7447	521	21203	443	5	340	..	92	..	39054	34033
	(f) Thrissocles	774	175	1824	4719	258	1898	919	1308	1821	608	..	..	14304	9929
	(g) Other clupeids	1174	1330	1794	3043	281	973	872	645	13608	13282	18	..	37020	41458
6.	(a) Harpodon nehereus	1365	314	1099	..	..	21	4	27	68781	53870	..	..	125481	85236
	(b) Saurida & Saurus	..	5	1057	1100	132	6246	92	279	1815	82	..	..	10808	8525



(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
7.	Hemirhamphus & Belone	11	13	60	759	..	281	41	56	51	1	61	144	1478	2311
8	Flying fish	..	4	65	1092	480	..	..	2	5	..	..	33	1681	643
9.	Perches	..	173	1945	9241	487	24989	174	781	6951	4174	234	163	49312	31799
10.	Red mullets	..	2	335	1963	109	171	31	..	344	2	..	27	2984	2422
11.	Polynemids	87	1287	1075	706	27	35	3	1	1909	339	..	..	5469	3929
12.	Sciaenids	1772	5198	5597	14239	374	13045	1728	3256	17202	33968	..	..	96379	99887
13.	Ribbon fish	681	336	5505	28664	139	24207	404	504	10400	6944	1	..	77785	42407
14.	(a) Caranx	2	68	2000	3104	218	7197	202	1803	1899	270	133	60	16956	30666
	(b) Chorinemus	38	815	665	971	33	148	13	56	300	320	..	..	3359	4119
	(c) Trachynotus	..	..	..	84	..	19	3	..	..	..	..	..	106	80
	(d) Other carangids	..	..	87	171	..	72	43	..	50	..	..	..	423	219
	(e) Coryphaena	..	..	24	18	3	19	..	..	..	..	..	..	64	226
	(f) Elacate	..	3	53	239	..	166	55	52	..	..	..	..	568	429
15.	(a) Leiognathus	297	256	2174	30281	372	3040	4241	704	323	..	89	..	41777	34504
	(b) Gazza	..	..	..	104	..	..	..	..	..	..	..	..	104	61
16.	Lactarius	..	12	684	840	..	1533	198	443	836	3360	..	..	7906	10961
17.	Pomfrets	282	5714	2445	789	50	1614	1957	367	13050	15141	25	..	41434	35127
18.	Mackerel	..	196	2520	1453	179	25917	50704	3371	787	..	106	..	85233	62136
19.	Seer fish	54	1059	2600	4700	41	3354	1463	691	2915	3734	127	41	20779	21119
20.	Tunnies	..	609	328	1169	3	6548	614	300	1939	451	57	1875	13893	13005
21.	Sphyræna	..	4	43	2147	25	721	276	7	388	..	80	18	3709	2423
22.	Mugil	..	3	237	829	26	1	1	32	102	1264	131	..	2626	2269
23.	Bregmaceros	..	..	..	..	..	..	..	..	21	163	..	..	184	30
24.	Soles	24	103	347	1580	109	7276	1820	417	1676	268	..	..	13260	10810
25.	(a) Penaeid prawns	605	2599	8031	13327	245	45034	8422	1647	41091	7938	265	..	129204	96472
	(b) Non-penaeid prawns	663	12	1532	585	71	394	18	26	44255	3096	..	..	50652	73992
	(c) Lobsters	..	..	20	249	2	38	39	13	607	339	..	..	1307	1217
	(d) Crabs & Other crustaceans	..	4	477	9290	251	2176	741	531	148	584	..	..	14202	20068
26.	Cephalopods	30	4	297	1042	36	6516	1346	124	4557	1959	..	20	15931	10005
27.	Miscellaneous	4153	848	6021	19107	586	16823	21538	757	13585	24595	5368	201	113582	91945
Total		12754	39670	82116	212899	6828	373339	152860	27111	284244	201929	7077	2780	1403607	1259782

2.31 State-wise composition of marine fish landings in India during 1979

(Figures in tonnes)

Sl. No.	Name of fish	West Bengal	Orissa	Andhra Pradesh	Tamil Nadu	Pondicherry	Kerala	Karnataka	Goa	Maharashtra	Gujarat	Andaman	Lakshadweep	Private trawlers @	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1.	Elasmobranchs	244	4331	6994	12393	222	6954	2531	1280	12516	4926	88	364	..	52843
2.	Eels	..	2	245	119	88	10	1	35	4033	2622	..	..	..	7155
3.	Cat fishes	140	1308	3799	5617	51	11328	9920	846	10433	5320	55	..	..	48817
4.	Chirocentrus	407	1644	976	1839	167	1125	258	122	1721	1970	45	..	..	10274
5.	(a) Oil Sardines	..	..	..	1011	..	116834	33080	3030	16	..	..	..	..	153971
	(b) Lesser sardines	..	2687	6180	33289	1998	15914	4753	2471	927	..	132	..	..	68351
	(c) Hilsa ilisha	660	9969	78	41	..	6	10	2	1071	231	..	..	..	12068
	(d) Other Hilsa	38	359	1092	2761	12	36	52	14	429	3837	42	..	..	8672
	(e) Anchoviella	14	505	5888	11061	346	6552	1721	..	382	..	119	..	..	26588
	(f) Thrissocles	270	295	3433	5542	429	1789	441	911	2832	686	..	..	..	16628
	(g) Other clupeids	1517	1131	2518	3564	345	674	2278	378	15675	5552	33	..	..	33965
6.	(a) Harpodon nehereus	1211	449	717	1	..	1	5	9	59667	63984	..	..	..	126044
	(b) Saurida & Saurus	..	50	1379	1498	262	5326	155	104	2374	6	..	..	..	11154
7.	Hemirhamphus & Belone	..	28	100	624	6	257	49	13	126	185	88	101	..	1577
8.	Flying fish	..	4	71	1599	854	..	..	1	1	..	..	16	..	2546
9.	Perches	225	151	3095	5919	1004	20239	181	203	3225	973	239	203	..	35657
10.	Red mullets	..	2	426	1448	203	127	30	..	859	8	..	27	..	3130
11.	Polynemids	172	1491	1412	353	14	29	2	..	1600	736	..	..	..	5809
12.	Sciaenids	915	5351	8825	18948	306	5237	2348	1492	21366	28230	..	..	..	93018
13.	Ribbon fish	291	616	6337	21040	129	25718	1193	548	10983	4491	3	..	..	71349
14.	(a) Caranx	71	326	3185	7022	537	12339	1103	1343	2314	510	134	58	..	28942
	(b) Chorinemus	67	716	444	844	27	128	59	140	416	466	..	..	..	3307
	(c) Trachynotus	..	..	..	182	..	..	13	..	..	..	..	..	..	195
	(d) Other carangids	..	..	56	23	..	..	1	..	385	..	..	..	..	465
	(e) Coryphaena	..	1	7	37	2	48	..	..	51	..	..	..	..	146
	(f) Elacate	..	1	..	535	..	120	34	190	..	..	..	..	..	880

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
15.	(a) <i>Leiognathus</i>	96	1108	3585	42886	746	3597	1565	881	724	..	78	..	..	55266
	(b) <i>Gazza</i>	..	..	..	197	..	..	..	..	..	..	..	..	..	197
16.	<i>Lactarius</i>	..	5	945	1323	11	253	433	291	430	783	..	..	..	4474
17.	<i>Pomfrets</i>	923	10109	2069	877	35	1737	250	138	14941	9319	29	..	..	40427
18.	<i>Mackerel</i>	..	306	2621	3521	424	18585	40084	4391	1455	35	92	..	..	71514
19.	<i>Seer fish</i>	331	2444	5547	5228	105	6275	1645	1101	4027	2682	138	24	..	29547
20.	<i>Tunnies</i>	..	31	437	3211	1	15391	1717	742	1772	442	57	2794	..	26595
21.	<i>Sphyræna</i>	..	5	62	1463	22	477	41	7	82	..	95	11	..	2265
22.	<i>Mugil</i>	..	22	159	229	27	39	..	14	38	751	121	..	..	1400
23.	<i>Bregmaceros</i>	..	..	..	..	..	..	..	..	276	362	..	..	..	638
24.	<i>Soles</i>	..	125	610	2337	162	4487	874	893	2304	411	..	..	..	12203
25.	(a) <i>Penaeid prawns</i>	410	2983	8697	10222	532	29522	4654	1594	45638	8606	64	..	743	113665
	(b) <i>Non penaeid prawns</i>	161	34	3117	897	72	75	6	..	56208	3347	..	..	..	63917
	(c) <i>Lobsters</i>	..	..	33	340	5	26	15	6	499	211	..	..	..	1135
	(d) <i>Crabs &amp; other crustaceans</i>	..	6	1109	5883	242	7643	2740	1379	519	783	..	..	..	20304
26.	<i>Cephalopods</i>	..	14	523	1903	50	2976	68	173	3959	5351	..	15	..	15032
27.	<i>Miscellaneous</i>	2581	2899	4655	17181	632	8635	12074	646	7052	33496	69	233	16097	106250
Total		10744	51808	91426	235008	10068	330509	126384	25388	293326	191312	1721	3846	16840	1388380

@ Partial coverage larger trawlers

### 2.32 Composition of Marine Fish Landings in India during 1969 to 1979

(in tonnes)

Sl.No.	Name of fish	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	<i>Elasmobranchs</i>	35,442	44,048	41,348	46,237	44,917	66,054	65,230	64,605	62,216	61,621	52,843
2.	<i>Eels</i>	3,052	6,983	4,056	4,509	3,869	4,011	51,710	8,296	12,997	8,781	7,155
3.	<i>Catfishes</i>	26,903	50,631	48,858	42,443	52,642	76,196	68,689	43,540	53,504	39,231	48,817
4.	<i>Chirocentrus</i>	9,337	9,158	9,366	9,532	11,090	9,026	11,813	10,368	11,909	10,990	10,274
5.	(a) <i>Oil sardine</i>	1,74,249	2,26,997	2,09,261	1,27,568	1,44,395	1,26,676	1,59,240	1,69,262	1,50,130	1,68,078	1,53,971
	(b) <i>Lesser sardines</i>	52,467	55,220	61,283	44,629	108,523	83,921	1,12,117	1,00,000	65,724	52,838	68,351
	(c) <i>Hilsa ilisha</i>	661	1,050	1,769	1,409	404	4,248	8,897	7,842	4,189	9,894	12,068
	(d) <i>Other Hilsa</i>	7,873	9,492	10,361	12,229	11,918	7,541	7,567	8,482	14,651	12,800	8,672
	(e) <i>Anchoviella</i>	31,436	24,400	19,516	18,699	25,394	41,507	30,744	30,069	34,033	39,054	26,588
	(f) <i>Thrissocles</i>	9,009	14,087	10,801	11,130	13,194	11,433	9,997	17,660	9,929	14,304	16,628
	(g) <i>Other clupeids</i>	26,316	26,439	24,100	28,490	35,350	43,226	52,786	57,164	41,458	37,020	33,965

6.	(a) Harpodon nehereus	76,276	78,443	71,508	51,570	64,345	61,138	99,614	87,075	85,236	1,25,481	1,26,044
	(b) Saurida & Saurus	3,043	2,813	3,687	4,748	4,049	12,520	14,323	5,292	8,525	10,808	11,154
7.	Hemirhamphus & Belone	981	1,814	1,018	687	1,110	4,574	1,980	1,169	2,311	1,478	1,577
8.	Flying Fish	4,039	2,844	9,179	1,415	6,388	1,012	1,832	1,439	643	1,681	2,546
9.	Perches	12,865	13,913	12,993	15,247	21,513	36,837	35,232	18,162	31,799	49,312	35,657
10.	Red mullets	3,475	2,118	3,881	6,004	3,925	7,009	2,641	5,216	2,422	2,984	3,130
11.	Polynemids	3,480	7,168	7,252	7,100	9,248	10,637	14,044	14,573	3,929	5,469	5,809
12.	Sciaenids	35,041	41,903	36,903	40,159	87,682	79,261	1,14,535	87,581	99,887	96,379	93,018
13.	Ribbon fish	31,722	26,984	44,690	36,225	53,106	63,029	57,330	64,542	42,407	77,785	71,349
14.	(a) Caranx	21,415	18,412	20,592	27,009	25,298	19,396	23,005	25,745	30,666	16,956	28,942
	(b) Chorinemus	2,443	2,120	2,109	2,952	2,827	3,797	3,380	3,322	4,119	3,359	3,307
	(c) Trachynotus	149	143	17	2	189	122	64	35	80	106	195
	(d) Other carangids	7	966	304	308	129	91	207	1,572	219	423	465
	(e) Coryphaena	237	254	59	222	228	286	411	161	226	64	146
	(f) Elacate	309	518	347	403	529	229	221	383	429	568	880
15.	(a) Leiognathus	44,038	49,275	32,510	32,314	48,127	50,902	39,813	42,445	34,504	41,777	55,266
	(b) Gazza	102	154	156	78	41	338	424	966	61	104	197
16.	Lactarius	4,546	4,697	5,313	7,579	13,912	8,913	11,848	12,045	10,961	7,906	4,474
17.	Pomfrets	24,176	17,589	21,000	19,007	22,052	22,421	24,987	37,701	35,127	41,434	40,427
18.	Mackerel	91,837	1,39,206	2,04,575	1,08,971	79,423	37,462	45,947	65,497	62,136	85,233	71,514
19.	Seer fish	11,516	13,410	18,339	21,210	19,700	19,841	18,897	20,159	21,119	20,779	29,547
20.	Tunnies	3,445	3,015	6,032	5,760	5,678	10,839	11,285	19,322	13,005	13,893	26,595
21.	Sphyraena	1,996	1,530	1,271	2,367	3,415	4,862	2,150	2,388	2,423	3,709	2,265
22.	Mugil	2,693	2,428	3,737	1,559	3,138	4,497	3,515	2,613	2,269	2,626	1,400
23.	Bregmaceros	1,684	2,196	4,345	5,488	4,213	1,872	1,043	380	30	184	638
24.	Soles	11,991	13,364	11,380	9,718	14,642	18,917	12,044	10,088	10,810	13,620	12,203
25.	(a) Penaeid prawns	72,133	89,857	72,109	78,361	1,36,514	1,14,934	1,41,713	1,14,640	96,472	1,29,204	113,665
	(b) Non penaeid prawns	33,964	31,834	76,734	85,488	66,955	55,244	79,038	76,787	73,992	50,652	63,917
	(c) Lobsters	..	..	..	..	..	..	2,991	2,532	1,217	1,307	1,135
	(d) Crabs & other crustaceans	5,670	10,832	9,612	11,599	12,508	16,663	19,893	19,999	20,068	14,202	20,304
26.	Cephalopods	769	1,184	1,505	1,026	1,394	3,677	7,889	10,826	10,005	15,931	15,032
27.	Miscellaneous	30,843	36,118	37,513	48,598	56,266	72,718	97,607	90,812	91,945	1,13,582	1,06,250
Total		9,13,630	10,85,607	11,61,389	9,80,049	12,20,240	12,17,797	14,22,693	13,52,855	12,59,782	14,03,607	13,88,380

## 2. 33 Top Ten Fish Producing Countries of the world

Sl. No.	Countries	Fish landings in Million			Tonnes	
		1974	1975	1976	1977	1978
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Japan	10.80	10.52	10.66	10.76	10.75
2	U.S.S.R.	9.26	9.97	10.13	9.35	8.93
3	China	4.40	4.50	4.60	4.70	4.66
4	U.S.A.	2.93	2.92	3.16	3.09	3.51
5	Peru	4.14	3.45	4.34	2.54	3.36
6	Norway	2.67	2.54	3.42	3.46	2.65
7	India	2.26	2.27	2.17	2.31	2.37
8	Korea Republic	2.02	2.13	2.41	2.42	2.35
9	Thailand	1.52	1.55	1.66	2.19	2.26
10	Denmark	1.84	1.77	1.91	1.81	1.75

Arranged on the basis of 1978 landings.

Source: F.A.O. Year Book of Fishery Statistics 1978.

## 2. 34 Top Ten Shrimp landing Countries of the World

Shrimp landing in thousand tonnes  
(1974-78)

Sl. No.	Countries	1974	1975	1976	1977	1978
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	India	246.3	237.8	196.1	206.7	200.52
2.	U.S.A.	169.5	155.9	183.1	215.5	191.82
3.	Thailand	97.4	110.6	113.9	119.5	140.61
4.	Indonesia	62.7	72.6	124.9	133.1	138.71
5.	Malaysia	77.3	46.7	58.0	64.2	82.13
6.	Mexico	74.8	69.8	73.8	72.6	67.34
7.	Japan	85.0	76.0	66.2	59.7	59.76
8.	Philippines	59.1	56.6	57.0	41.2	42.68
9.	Spain	38.4	41.7	38.5	39.8	37.71
10.	Republic of Korea	18.2	30.3	30.5	29.6	26.16
Total World Shrimp landings		1320.9	1294.6	1414.2	1446.2	1474.2

Source: F.A.O. Year Book of Fishery Statistics 1978.

## 2. 35 Fish landings—Marine areas in India and World (1974-78)

Year	World (Quantity M.Ton)	India (Quantity—Metric ton)	Percentage of landing of India to that of World %
(1)	(2)	(3)	(4)
1974	61910900	1217797	2.0
1975	61222400	1422693	2.3
1976	64807100	1352855	2.1
1977	63720300	1259782	2.0
1978	64986000	1403607	2.2
9 Five year average	63329340	1331346	2.1

Source: F.A.O. Year Book of Fishery Statistics 1978.



## 2. 36 Fish Landings (Marine) Kerala and India (1974-78)

Year	India Quantity (Metric Ton)	Kerala (Quantity M.T.)	Percentage of Kerala landings to that of India
(1)	(2)	(3)	(4)
1974	1217797	420257	34.5
1975	1422693	420836	29.6
1976	1352855	331047	24.5
1977	1259782	345037	27.4
1978	1403607	373339	26.6
Five year average	1331347	378103	28.4

## 2. 37 Average Beach Price of Fish in Kerala (1974-75 to 1979-80)

Price Rs./Kg

Sl. No.	Name of Fish	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Elasmobranchs	0.99	1.02	1.08	1.15	1.18	1.21
2.	Eels	..	1.4	1.62	1.8	2.0	2.10
3.	Cat fishes	1.13	1.15	1.19	1.21	1.26	1.26
4.	Chirocentrus	1.16	1.18	1.22	1.26	1.30	1.30
5.	(a) Oil sardine	0.87	0.88	0.85	0.86	0.89	0.90
	(b) Other Sardines	0.94	0.90	0.92	0.94	0.96	0.97
	(c) Hilsa Illisha	..	..	..	..	..	..
	(d) Other hilsa	..	..	..	..	..	..
	(e) Anchoviella	0.71	0.72	0.75	0.81	0.82	0.84
	(f) Thrissocles	0.85	0.88	0.91	0.94	0.99	0.99
	(g) Otherclupeids	0.89	0.92	0.98	1.05	1.11	1.13
6.	(a) Harpodon Neherius	..	..	..	..	..	..
	(b) Saurid and saurus	1.37	1.39	1.40	1.40	1.40	1.40
7.	Hemirhamphus	..	0.86	0.89	0.94	1.00	1.00
8.	Flying fish	..	0.95	..	..	..	..
9.	Perches	1.22	1.26	1.30	1.37	1.38	1.40
10.	Red mullets	1.53	1.22	1.30	1.37	1.40	1.42
11.	Polynemids	..	0.92	0.95	1.00	1.00	1.03
12.	Sciaenids	1.02	1.03	1.05	1.08	1.10	1.10
13.	Ribbon fish	0.89	0.90	0.91	0.91	0.92	0.93
14.	(a) Caranx	0.97	1.01	1.06	1.10	1.11	1.11
	(b) Chorinemus	..	0.92	0.94	1.00	1.04	1.05
	(c) Trachynotus	..	1.23	1.00	1.64	..	..
	(d) Other carangids	..	0.59	..	0.65	0.69	..
	(e) Coryphaena	..	1.66	1.69	1.83	1.84	1.89
	(f) Elacate	..	1.89	1.98	2.00	2.10	2.10

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
15.	(a) <i>Lciognathus</i>	0.56	0.61	0.65	0.65	0.66	0.66
	(b) <i>Gazza</i>	..	..	..	..	..	..
16.	<i>Lactarius</i>	2.87	1.90	1.96	2.00	2.15	2.18
17.	<i>Pomfrets</i>	2.60	3.12	3.25	3.40	3.67	3.70
18.	<i>Mackerel</i>	2.33	1.52	1.60	1.62	1.66	1.66
19.	<i>Seer Fish</i>	3.78	4.02	4.40	4.60	4.63	4.65
20.	<i>Tunnies</i>	1.82	2.35	2.86	3.00	3.00	3.06
21.	<i>Sphyraena</i>	1.60	1.61	1.84	2.00	2.08	2.10
22.	<i>Mugil</i>	2.59	1.58	1.65	1.82	1.90	1.96
23.	<i>Bregmaceros</i>	..	..	..	..	..	..
24.	<i>Soles</i>	0.85	0.59	0.61	0.69	0.73	0.73
25.	(a) <i>Penacid prwans</i>	3.19	5.18	7.26	8.37	9.21	9.96
	(b) <i>Non-penacid prawns</i>	2.22	..	..	..	..	..
	(c) <i>Other crustaceans</i>	1.38	1.65	1.84	1.90	2.04	2.10
26.	<i>Cephalopods</i>	1.51	1.51	1.65	1.71	1.71	2.50
27.	<i>Miscellaneous</i>	1.14	0.91	1.05	1.15	1.20	1.14

### III. INLAND FISHERIES—INLAND WATER RESOURCES

#### 3.1 Inland Water Resources of Kerala

<i>Type of Inland water</i>	<i>Provisional estimated area (ha.)</i>
Rivers	85,000
Tanks and ponds	3,300
Reservoirs	24,137
Brackish water, lakes, backwaters and estuaries	2,42,600*
<b>Total</b>	<b>3,55,037</b>

\*Out of this 121600 ha. is available for prawn culture.

#### 3.2 Details of Rivers in Kerala

<i>Sl. No.</i>	<i>Name of Rivers</i>	<i>Length</i>		<i>Kerala</i>		<i>Catchment area Karnataka</i>		<i>Tamil Nadu</i>		<i>Total</i>	
		<i>Km.</i>	<i>Miles</i>	<i>Sq. Km.</i>	<i>Sq. Miles</i>	<i>Sq. Km.</i>	<i>Sq. Miles</i>	<i>Sq. Km.</i>	<i>Sq. Miles</i>	<i>Sq. Km.</i>	<i>Sq. Miles</i>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<b>I. WEST FLOWING RIVERS*</b>											
1.	Manjeswar	16	10	90	35	..	..	..	..	90	35
2.	Uppala	50	31	76	29	174	67	..	..	250	96
3.	Shiriya	67	42	290	112	297	115	..	..	587	227
4.	Mogral	34	21	132	51	..	..	..	..	132	51
5.	Chandragiri	105	65	570	220	836	322	..	..	1406	542
6.	Chittari	25	16	145	56	..	..	..	..	145	56

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
7.	Nileswar	46	29	190	73	..	..	..	..	190	73
8.	Kariangode	64	40	429	166	132	51	..	..	561	217
9.	Kavvayi	31	19	143	55	..	..	..	..	143	55
10.	Peruvamba	51	32	300	116	..	..	..	..	300	116
11.	Ramapuram	19	12	52	20	..	..	..	..	52	20
12.	Kuppam	82	51	469	181	70	27	..	..	539	208
13.	Valapattanam	110	68	1321	510	456	211	..	..	1867	721
14.	Anjarakandy	48	30	412	159	..	..	..	..	412	159
15.	Tellicherry	28	17	132	51	..	..	..	..	132	51
16.	Mahe	54	34	394	152	..	..	..	..	394	152
17.	Kuttiadi	74	46	583	225	..	..	..	..	583	225
18.	Korapuzha	40	25	624	241	..	..	..	..	624	241
19.	Kallai	22	14	96	37	..	..	..	..	96	37
20.	Chaliyar	169	105	2535	979	..	..	388	150	2923	1129
21.	Kadalundi	130	81	1122	433	..	..	..	..	1122	433
22.	Tirur	48	30	117	45	..	..	..	..	117	45
23.	Bharathapuzha	209	130	4400	1699	..	..	1786	690	6186	2389
24.	Keecheri	51	32	401	155	..	..	..	..	401	155
25.	Puzhakkal	29	18	234	90	..	..	..	..	234	90
26.	Karuvannur	48	30	1054	407	..	..	..	..	1054	407
27.	Chalakudy	130	81	1404	542	..	..	300	116	1704	658
28.	Periyar	244	152	5284	2040	..	..	114	44	5398	2084
29.	Muvattupuzha	121	85	1554	600	..	..	..	..	1554	600
30.	Meenachal	78	48	1272	491	..	..	..	..	1272	491
31.	Manimala	90	56	847	327	..	..	..	..	847	327
32.	Pamba	176	109	2235	863	..	..	..	..	2235	863
33.	Achencoil	128	80	1484	573	..	..	..	..	1484	573
34.	Pallickal	42	26	220	85	..	..	..	..	220	85
35.	Kallada	121	75	1699	656	..	..	..	..	1699	656
36.	Ithikkara	56	35	642	248	..	..	..	..	642	248
37.	Ayroor	17	11	66	25	..	..	..	..	66	25
38.	Vamanapuram	88	55	687	266	..	..	..	..	687	266
39.	Mamon	27	17	114	44	..	..	..	..	114	44
40.	Karamana	68	42	702	271	..	..	..	..	702	271
41.	Neyyar	56	35	497	192	..	..	..	..	497	192
		..	..	35018	13520	1965	793	2588	1000	39571	15313

## II. EAST FLOWING RIVERS

1.	Kabbini	1920	741
2.	Bhavani	562	217
3.	Pambar	384	148
Total		2866	1106

\*Only rivers of length more than 15 km. have been included.

Source: "Water Resources of Kerala 1974".

### 3.3 Important Lakes and Backwaters in Kerala

1.	Kavvayi	Backwater
2.	Kottapuzha	do.
3.	Korapuzha	do.
4.	Valiangode	Lake
5.	Kodungallur	Kayal
6.	Parur	Lake
7.	Vembanad	do.
8.	Kayamkulam	do.
9.	Ashtamudi	do.
10.	Paravoor	do.
11.	Edavanadayara	Kayal
12.	Anjengo	Lake
13.	Kadinamkulam	Kayal
14.	Veli	do.

### 3.4 Extent of Brackish water marsh which could be reclaimed and used for Brackish Water Prawn Culture

<i>Region</i>	<i>District</i>	<i>Area (ha)</i>
(1)	(2)	(3)
Kuttanad	Alleppey	49,000
Sherthalai	Alleppey	4,900
Cochin-Kanayannur	Ernakulam	5,700
Parur	Ernakulam	10,000
Vaikom	Kottayam	10,000
Trichur District	Trichur	10,000
North Kerala	Malappuram, Kozhikode and Cannanore	32,000
	Total	121,600

### 3.5 Reservoirs in Kerala

<i>Sl.No.</i>	<i>Name</i>	<i>Area (Hectares)</i>
(1)	(2)	(3)
1.	Malampuzha (Palghat)	2313
2.	Mangalam do.	393
3.	Meenkara do.	259
4.	Chulliyar do.	159
5.	Pothundi do.	363
6.	Walayar do.	259
7.	Peechi (Trichur)	1263
8.	Vazhani do.	255

(1)	(2)	(3)
9.	Neyyar (Trivandrum)	1500
10.	Parampikulam (Palghat)	2092
11.	Thunakadavu do.	283
12.	Kuttiyadi (Kozhikode)	1052
13.	Sholayar (Trichur)	870
14.	Peringalkuthu do.	263
15.	Ponmudi (Idukki)	260
16.	Anayiramkal do.	433
17.	Kundala do.	230
18.	Mattupatti do.	324
19.	Sengulam do.	33
20.	Neriyamangalam do.	413
21.	Periyar lake do.	2890
22.	Pamba (Quilon)	570
23.	Kakki do.	1800
24.	Idukki (Idukki)	6160
Total		24137

### 3.6 Details of brackish water fish farms under the department

Sl.No.	Name of Farm	District	Area of Farm (Ha)
(1)	(2)	(3)	(4)
1.	Ayiramthengu	Alleppey	20.00
2.	Arattupuzha	Alleppey	40.00
3.	Narakkal	Ernakulam	18.40
4.	Malippuram	Ernakulam	21.00
5.	Edacochin	Ernakulam	36.00
6.	Kadappuram	Trichur	19.95
7.	Pöyyapparappu*	Trichur	85.00
8.	Erangoli	Cannanore	8.09

\*Under construction

### 3.7 Fish Seed Farms under the Department (Existing and under Construction)

Sl.No.	Name of Farm	District
(1)	(2)	(3)
1.	Kuttiyadi	Kozhikode
2.	Parappanangadi	Malappuram
3.	Alwaye	Ernakulam
4.	Vellilankandom (Kanchiyar)	Idukki
5.	Pallom	Kottayam
6.	Polachira	Alleppey



### 3. 8. Fresh Water Fish Seed Production Centres under the Department

<i>Sl.No.</i>	<i>Name of Centres</i>	<i>District</i>
(1)	(2)	(3)
1.	Malampuzha	Palghat
2.	Mangalam	"
3.	Walayar	"
4.	Meenkara	"
5.	Pothundy	"
6.	Vazhani	Trichur
7.	Peechi	"
8.	Pannivelichira	Quilon
9.	Neyyar Dam	Trivandrum

### 3. 9. Farms/Nursery facilities available at Reservoir heads in Kerala

1. Malampuzha
2. Meenkara
3. Mangalam
4. Pothundy
5. Walayar
6. Peechi
7. Neyyar
8. Vazhani

### 3. 10. Species-wise composition of inland fish landings in Kerala (1975 to 1979)

<i>Sl.No.</i>	<i>Name of fish</i>	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Prawns	3843	4852	4986	5140	4832
2.	Etrophus	6	2871	2996	2497	2756
3.	Murrels	3037	2717	2802	2746	2832
4.	Mulletts	1812	2064	2008	2035	2130
5.	Cat fish	2203	2260	2318	2378	2512
6.	Jew fish	1808	1975	1552	1334	1345
7.	Tilapia	2437	3386	3575	3640	3896
8.	Labeo Rehita	515	190	35	32	19
9.	Barbus	345	130	275	252	249
10.	Mrigal	251	69	30	20	14
11.	Crab	556	350	345	321	357
12.	Carpio	173	55	30	54	32
13.	Catla	219	101	26	35	10
14.	Gourami	78	29	11	240	12
15.	Chanos	97	25	40	118	184
16.	Cirrhina	66	..	..	..	..
17.	Mirror carps	12	..	..	..	..
18.	Macrones	57	..	..	..	..
19.	Eels	..	12	25	20	40
20.	Miscellaneous	3039	2704	2924	3494	3616
Total		23184	23790	23978	24356	24806

**3.11 SPECIES-WISE COMPOSITION OF INLAND FISH LANDINGS IN KERALA**  
(1975-76 to 1979-80)

I. No.	Name of Fish	1975-76		1976-77		1977-78		1978-79		1979-80	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Prawns	4032	15736	4929	20582	5106	22977	5204	32527	4652	29773
2	Etroplus	3031	10264	2880	9128	2402	10808	2638	13452	2847	14804
3	Murrels	2859	3139	2755	6715	2810	9835	2752	9908	2883	11532
4	Mullet	1979	7205	2068	6470	2020	12122	2043	12664	2196	13725
5	Cat fish	2165	1882	2257	4304	2320	4641	2385	5248	2638	6226
6	Barbus	252	672	134	399	281	701	243	633	256	768
7	Tilapia	2691	6173	3429	11834	3590	10771	3720	11161	4018	12536
8	Labio	235		194		15	46	45	134	12	41
9	Mrigala	187	435	69		17	50	22	69	10	35
10	Carpio	109	220	49	223	13	64	58	298	24	126
11	Catla	142	325	93	207	31	153	46	232	9	47
12	Rohita	91	208	..	..	..	..	..	..	..	..
13	Gourami	71	154	27	74	221	886	257	1066	8	40
14	Chanos	59	130	22	55	100	224	139	326	162	397
15	Cirrhina	61	135	..	..	..	..	..	..	..	..
16	Scianidae	1554	1171	2000	4963	1435	4299	1272	3880	1367	4347
17	Crabs	541	381	358	377	351	368	313	375	362	514
18	Mirror carps	40	84	..	..	..	..	..	..	..	..
19	Macrones	125	240	..	..	..	..	..	..	..	..
20	Eels	..	..	15	30	10	51	35	173	46	164
21	Miscellaneous	2984	4452	2689	3635	3407	5145	3340	5077	3590	5780
	Total	23208	53611	23968	69690	24129	83141	24512	97223	25080	100855

**3.12 (a) OPERATIONAL DETAILS OF FISH FARMS IN KERALA DURING 1976-77**

Sl. No.	Name of Fish Farm	District	Area in hectares	Weight fish caught	Amount realised by sale of fish	No. of fingerlings stocked	Expenditure incurred for stocking	Amount collected towards lease of usufructs
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				Kg.	Rs.		Rs.	Rs.
1	Ayiramthengu	Alleppey	20.00	5555.03	13880.47	12010	..	..
2	Arrattupuzha	Alleppey	40.00	2950.25	9005.00	..	..	Leased out for one year for Rs. 9005
3	Narakkal	Ernakulam	18.40	2980.25	15994.05	24150	..	..
4	Malippuram	Ernakulam	21.00	2709.25	14085.00	21650	..	..
5	Edacochin	Ernakulam	36.00	..	..	..	..	Leased out for Rs. 6000 annually for 10 years.
6	Kadappuram	Trichur	19.95	..	..	..	..	Leased out for Rs. 2620 annually for 5 years.
7	Erangoli	Cannanore	8.09	..	..	..	..	Leased out for Rs. 800 annually for 3 years. from 1-12-1974.

## 3.12 (b) OPERATIONAL DETAILS OF FISH FARMS IN KERALA DURING 1977-78

Sl. No.	Name of Fish Farm	District	Area in hectares	Weight of fish caught	Amount realised by sale of fish	No. of fingerlings stocked	Expenditure incurred for stocking	Amount collected towards lease of usufructs
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				(Kg.)	(Rs.)		(Rs.)	(Rs.)
1	Ayiramthengu	Alleppey	20.00	5656.005	18720.67	13000	..	8310.00
2	Arattupuzha	Alleppey	40.00	Leased out for Rs. 15 151			..	41.00
3	Narakkal	Ernakulam	18.40	2879.900	15361.15	52655	329.00	3105.00
4	Malippuram	Ernakulam	21.00	3588.000	17850.75	55560	399.00	1515.00
5	Edacochin	Ernakulam	36.00	Leased out for Rs. 6000 annually for 10 years				
6	Kadappuram	Trichur	19.95	Leased out for Rs. 2620 annually from 5-12-1973 to 4-12-1978				
7	Erangoli	Cannanore	8.09	Leased out for Rs. 2400 for 3 years from 1-12-1974.				

## 3.12 (c) OPERATIONAL DETAILS OF FISH FARMS IN KERALA DURING 1978-79

Sl. No.	Name of Fish Farm	District	Area in hectares	Quantity of fish caught	Amount realised by sale of fish	No. of fingerlings stocked	Expenditure incurred for stocking	Amount collected towards lease of usufructs
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				(kg.)	(Rs.)		(Rs.)	(Rs.)
1	Ayiramthengu	Alleppey	20.00	3914	12954.45	..	..	..
2	Arattupuzha	Alleppey	40.00	..	..	..	..	..
3	Narakkal	Ernakulam	18.40	1901.90	11583.78	47100	440	5960
4	Malippuram	Ernakulam	21.00	2753.50	14823.35	78865	7000	
5	Edacochin	Ernakulam	36.00	..	..	..	..	Leased out for Rs. 6000 annually for 10 Years
6	Kadappuram	Trichur	19.95	..	..	..	..	Leased out for Rs. 2620 annually for 5 years from 5-12-1978 to 4-12-1978
7	Erangoli	Cannanore	8.09	As per the Director's Order No C-19201/77 dated 7-10-1978 steps are being taken to lease out.				

## 3.13 (a) OPERATIONAL DETAILS OF RESERVOIRS IN KERALA FOR 1976-77

Sl. No.	Name	District	Area in hectares	Quantity of fish caught	Value realised	Fingerlings stocked
(1)	(2)	(3)	(4)	(5)	(6)	(7)
				(kg)	(Rs.)	(Nos.)
1	Malampuzha	Palghat	2313	8298.175	18658.27	175000
2	Mangalam	Palghat	399	943.900	2167.59	200000
3	Walayar	Palghat	259	3413.050	6673.75	100000
4	Pothundy	Palghat	363	4036.875	9052.55	300000
5	Meen kara	Palghat	259	5320.335	11595.41	60000
6	Chulliar	Palghat	165	1057.400	2410.00	..
7	Vazhani	Trichur	255	3304.500	8234.30	30000
8	Peechi	Trichur	1263	1125.250	2442.05	100000
9	Neyyar	Trivandrum	1500	1414.500	2975.73	541000
Total			6776	28913.985	64212.65	1506000

## 3.13 (b) OPERATIONAL DETAILS OF RESERVOIRS IN KERALA FOR 1977-78

Sl. No.	Name	District	Area in hectares	Quantity of fish caught	Value realised	Fingerlings stocked
(1)	(2)	(3)	(4)	(5)	(6)	(7)
				(Kg.)	(Rs.)	(Nos.)
1	Malampuzha	Palghat	2313	7911.100	20977.72	1409000
2	Meenkara	do.	259	3163.350	7301.58	
3	Walayar	do.	259	4045.000	7717.48	100000
4	Pothundy	do.	363	6017.650	12290.55	..
5	Mangalam	do.	399	1515.225	3391.00	..
6	Chulliar	do.	165	2068.200	4176.62	80000
7	Vazhani	Trichur	255	4649.000	11317.60	100000
8	Peechi	do.	1263			
9	Neyyar	Trivandrum	1500	118.800	243.00	..
Total			6776	29488.325	67435.55	18.4000

## 3.13(c) OPERATIONAL DETAILS OF RESERVOIRS IN KERALA FOR 1978-79

Sl. No.	Name	District	Area in hectares	Quantity of fish caught	Value realised	Fingerlings stocked
(1)	(2)	(3)	(4)	(5)	(6)	(7)
				(Kg.)	(Rs.)	(Nos.)
1	Malampuzha	Palghat	2313	10413.900	21558.35	..
2	Mangalam	do.	399	2663.450	5128.10	10000
3	Walayar	do.	259	4421.450	9000.45	300000
4	Pothundy	do.	363	7204.100	14369.26	..
5	Meenkara	do.	259	2553.950	5804.86	50000
6	Chulliar	do.	165	5015.490	8696.49	..
7	Vazhani	Trichur	255	2518.525	7065.58	176800
8	Peechi	do.	1263			
9	Neyyar	Trivandrum	1500	50.000	143.20	64000
Total			6776	34840.865	61766.19	600800

## 3.13 (d) OPERATIONAL DETAILS OF RESERVOIRS OF KERALA FOR 1979-80

Sl. No.	Name	District	Area in hectares	Quantity of fish caught	Value realised	Fingerlings stocked
(1)	(2)	(3)	(4)	(5)	(6)	(7)
				(Kg.)	(Rs.)	(Nos.)
1	Malampuzha	Palghat	2313	6655.525	16535.55	50850
2	Mangalam	do.	393	1635.285	3365.93	..
3	Walayar	do.	259	5023.750	11145.13	..
4	Pothundy	do.	363	5476.675	12677.30	12400
5	Meenkara	do.	259	1676.650	2824.24	25000
6	Chulliar	do.	165	2772.000	4738.77	45
7	Vazhani	Trichur	255	2639.610	7368.75	16800
8	Peechi	do.	1263			
9	Neyyar	Trivandrum	1500	N.A.	N.A.	N.A.

## 3.14 (a) Details of Licence fee collected during the year 1976-77

Sl. No.	District	China Nets		Stake Nets		Free Nets	
		Number of nets at the end of the year	Amount collected	Number of nets at the end of the year	Amount collected	No. of nets at the end of the year	Amount collected
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			Rs.		Rs.		Rs.
1	Trivandrum	..	..	..	..	232	1625.00
2	Quilon	65	250.00	882	N.A.	N.A.	4593.50
3	Alleppey	290	415.12	1897 25/72	2640.79	1947	13640.40
	Total for Zonal Dy. Director, Quilon	355	665.12	2779 25/72	N.A.	N.A.	19858.90
4	Kottayam	90	318.25	760½	1854.50	737	3259.00
5	Idukki	..	..	..	..	..	..
6	Ernakulam	1005	11586.00	2959½	23346.00	295	1551.00
	Total for Zonal Dy. Director, Ernakulam	1095	11904.25	3719½	25200.50	1032	4810.00
7	Trichur	42	336.00	422	1876.95	39	168.00
8	Palghat	..	..	..	..	..	..
9	Malappuram	..	..	28	112.00	..	..
10	Kozhikode	..	..	116	1012.00	..	..
	Total for Zonal Dy. Director, Kozhikode	42	336.00	576	3000.95	39	168.00
11	Cannanore	3	..	..	..	..	..

## 3.14 (b) Details of Licence Fee collected during the year 1977-78

Sl. No.	District	China nets		Stake nets		Free nets	
		No. of nets at the end of the year	Amount collected	No. of nets at the end of the year	Amount collected	No. of nets at the end of the year	Amount collected
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			(Rs.)		(Rs.)		(Rs.)
1	Trivandrum	2	150.00	..	..	84	698.00
2	Quilon	N.A.	494.40	N.A.	744.56	N.A.	1588.00
3	Alleppey	346	1737.00	1931	4347.52	1675	11996.00
	Total for Zonal Dy. Director, Quilon	348	2381.40	N.A.	5092.08	N.A.	14282.00
4	Kottayam	100	223.00	798½	1956.54	737	3007.50
	Idukki	..	..	..	..	..	..
6	Ernakulam	1150	2227.75	3149½	4616.46	426	1959.00
	Total for Zonal Dy. Director, Ernakulam	1250	2450.75	3947½	6573.00	1163	4966.50
7	Trichur	42	115.00	425	794.92	61	200.00
8	Palghat	..	..	..	..	..	..
9	Malappuram	..	..	28	112.00	..	..
10	Kozhikode	..	..	118	528.00	..	..
	Total for Zonal Dy. Director, Kozhikode	42	115.00	571	1434.92	61	200.00
11	Cannanore	1	10.00	688	9006.00	..	..



## 3.14 (c) Details of Licence Fee Collected during 1978-79

Sl. No.	District	Stake nets		China nets		Free nets	
		No. of nets at the end of the year	Amount collected	No. of nets at the end of the year	Amount collected	No. of nets at the end of the year	Amount collected
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			(Rs.)		(Rs.)		(Rs.)
1	Trivandrum	..	..	1	75.00	161	1283.00
2	Quilon	N.A.	5924.60	N.A.	242.28	N.A.	1675.00
3	Alleppey	1940 25/72	1379.56	350	563.00	..	..
	Total for Zonal—Quilon	N.A.	7304.16	N.A.	880.28	N.A.	2958.00
4	Kottayam	797½	683.75	111	317.00	..	..
5	Idukki	..	..	..	..	..	..
6	Ernakulam	3256½	4648.03	1263	1561.30	478	1953.00
	Total for Ernakulam	4053½	5331.78	1374	1878.30	478	1953.00
7	Trichur	421	1129.68	42	140.00	..	..
8	Palghat	..	..	..	..	..	..
9	Malappuram	32	128.00	..	..	..	..
10	Kozhikode	143	572.00	..	..	..	..
	Total for Zonal—Kozhikode	596	1829.68	42	140.00	..	..
11	Cannanore	760	2880.00	1	10.00	..	..

## 3.15 Details of Prawn filtration in Paddy fields for 1976-77, 1977-78, 1978-79 &amp; 1979-80

Sl. No.	District	No. of licences issued				Area in Hectares				Amount Collected (Rs.)			
		1976-77	1977-78	1978-79	1979-80	1976-77	1977-78	1978-79	1979-80	1976-77	1977-78	1978-79	1979-80
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Alleppey	107	76	87	..	357.84	235.70	321.69	295.00	4987.75	13213.75	12649.87	11678.22
2	Kottayam	17	17	4	N.A.	207.60	61.78	12.00	52.89	2753.60	3937.80	463.60	2017.70
3	Ernakulam	988	978	1038	976	4494.62	4607.20	4224.43	4315.84	56661.60	169972.38	160501.81	161849.25
4	Trichur	163	171	162	147	590.40	714.94	540.00	486.06	7455.40	18568.45	19911.60	16056.70
5	Cannanore	..	..	..	..	..	..	4.00	..	..	..	100.00	..
	Total	1275	1242	1291	1123	5650.46	5619.62	5102.12	5149.79	71858.35	205692.38	193626.88	191601.87

## 3.16 Details of Fishery Waters leased out during the years 1976-77, 1977-78, 1978-79 and 1979-80

Sl. No.	District	Amount collected (Rs.)			
		1976-77	1977-78	1978-79	1979-80
(1)	(2)	(3)	(4)	(5)	(6)
1	Trivandrum	46945.00	*	*	53257.00
2	Alleppey	11057.00	17235.00	12358.00	16943.00
3	Palghat	2095.00	2070.00	2076.00	3432.00
4	Trichur	..	949.60	680.00	428.00
Total		60097.00	20254.60	15114.00	74060.00

\* Not leased out during 1977-78 and 1978-79.

## 3.17 (a) DETAILS OF CHANK FISHERIES FROM 1976-77 TO 1979-80

Year	No. of chanks collected	Amount collected	Name of bidder
(1)	(2)	(3)	(4)
1976-77	15075	26100.00	K. M. S. Syed Ahamed Thampi Manacaud, Trivandrum
1977-78*	N.A.	..	..
1978-79	35117	12345.67	M/s. Manusha Shank Suppliers Tamil Nadu
1979-80	44670	27000.00	K. M. S. Syed Ahamed Thampi, Manacaud, Trivandrum

\* Not leased out

## 3.17 (b) Details of chank collections from 1964-65 to 1979-80

Year	No. of chanks collected	Royalty collected by Government
(1)	(2)	(3)
1964-65	8296	10032.50
1965-66	11918	6666.66
1966-67	11500	9001.00
1967-68	9997	13003.00
1968-69	14538	8167.86
1969-70	17814	17201.77
1970-71	34025	20001.00
1971-72	41179	22001.00
1972-73	27850	23000.00
1973-74	8339*	24000.00
1974-75	17004	18274.00
1975-76	4750*	26100.00
1976-77	15075	26100.00
1977-78	Not leased out	
1978-79	35117	12345.67
1979-80	44670	27000.00

\*Data incomplete.

## 3.18 Fish Landings—Inland Waters—Kerala and India (1974-78)

Year	India Quantity (M. T.)	Kerala (Quantity Metric ton)	Percentage of Kerala landings to that of India
(1)	(2)	(3)	(4)
1974	783321	23005	2.94
1975	783770	23184	2.96
1976	799221	23790	2.93
1977	863429	23978	2.78
1978	895383	24356	2.72
Five year average	825025	23663	2.87

## 3.19 Fish Landings—Inland waters—India and World (1974-78)

Year	World (Quantity M. T.)	India (Quantity M. T.)	Percentage of landing of India that of World
(1)	(2)	(3)	(4)
1974	6984500	783321	11.2
1975	7385800	783770	10.6
1976	7305900	799221	10.9
1977	7492700	863429	11.5
1978	7393500	895383	12.1
Five year average	7312460	825025	11.3

Source: F. A. O. Year Book of Fishery Statistics 1978.

## 3.20 Selling prices of different species of fish caught from the reservoirs for the year 1977-78

V Value in Rs. per Kg.

Sl. No.	Species	Malampuzha	Meenkara	Chulliar	Walayar	Mangalam	Pothundy	Peechi	Vazhani	Pannivelichira
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Gourami	4.00	4.00	4.00	4.00	5.00	5.00	..	..	5.00
2	Catla Catla	3.60	3.00	3.00	3.60	3.60	4.20	4.00	4.00	4.00
3	Tilapia Mossambica	4.40	3.00	2.60	2.80	3.00	3.00	3.00	3.00	3.00
4	Labec species	3.60	3.20	3.00	3.60	3.60	4.20	4.50	4.50	4.00
5	Murrel	4.40	4.40	3.60	4.00	3.00	4.20	5.00	5.00	3.00
6	Cy. carpio	3.60	3.20	3.20	3.80	4.00	4.20	4.50	..	4.00
7	Mirror Carp	3.60	3.00	3.20	3.60	4.00	4.00	..	..	..
8	Anguila	4.00	4.40	3.80	3.60	..	5.00	..	..	..
9	Aral	2.60	3.00	3.40	3.60	3.00	4.00	..	..	..

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)	(10)	(11)
10	Cirrhinus species	2.40	2.00	3.00	3.60	3.60	4.20	4.50	4.50	4.00
11	Saccobraunchus	2.40	2.40	2.60	2.80	..	4.20	..	..	3.00
12	Wallago Attu	4.00	3.00	3.00	3.60	3.00	4.30	..	..	3.00
13	Etroplus Suratinis	2.40	2.00	..	2.80	3.00	4.60	3.00	..	4.00
14	Tor kundrec	2.80	1.80	..	1.60	2.00	2.60	..	..	..
15	Glossogobius	1.20	1.60	1.20	1.20	..	1.60	..	..	..
16	Macrones	3.40	2.40	..	3.20	..	..	..	..	..
17	Cheegu	2.00	1.60	1.20	1.20	3.00	2.00	..	..	..
18	Barbus curumca	2.00	1.80	1.40	1.60	2.00	2.20	..	..	3.00
19	Minnows	1.60	1.60	1.40	1.40	1.80	1.60	1.80	..	..
20	Barbus sarana	..	..	1.40	..	..	..	2.50	..	..
21	Eels	..	..	..	..	3.00	..	..	..	2.00
22	Cat fish	..	..	..	..	..	..	..	1.80	..
23	Miscellaneous	..	..	..	..	..	..	..	2.00	1.00
24	Labeo cut fish	..	..	..	..	..	..	3.60	..	..
25	Cyprinus carbonae	..	..	..	..	..	..	3.60	..	..
26	Barbustor	..	..	..	..	..	..	2.50	..	..
27	Desbus publicilus	..	..	..	..	..	..	2.50	..	..
28	Ompok biranacultus	..	..	..	..	..	..	2.50	..	..
29	Clarius bettractus	..	..	..	..	..	..	2.50	..	3.00

### 3.21 Selling prices of different species of fish caught from the Reservoirs for the year 1978-79.

Sl. No.	Name of species	Price per Kg. (Rs.)
1	Gourami	6.00
2	Catla	5.00
3	Labeo spp.	6.00
4	Cirrhinus spp.	6.00
5	Cyprinus carpio	6.00
6	Grass carp	5.00
7	Etroplus suratensis	5.00
8	Barbus spp.	4.00
9	Sacco branchus	4.00
10	Clarius	4.00
11	Wallago Attu	5.00
12	Murrels	4.00
13	Tilapia	3.00
14	Mystuseenghala	3.00
15	Eels	3.00
16	Miscellaneous	2.00

## 3.22 Average Landing prices of Inland Fishes

Sl. No.	Name of Fish	1975-76	1976-77	1977-78	1978-79	1979-80
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Prawns	3.90	4.18	4.50	6.25	6.40
2	Etroplus	3.39	3.17	4.50	5.10	5.20
3	Murrels	1.10	2.44	3.50	3.60	4.00
4	Mulletts	3.64	3.13	6.00	6.20	6.30
5	Cat fish	0.87	1.91	2.00	2.20	2.36
6	Barbus	2.67	2.98	2.49	2.60	3.00
7	Tilapia	2.29	3.45	3.00	3.00	3.12
8	Labio	2.57	2.96	3.07	2.98	3.40
9	Mrigala	2.33	3.17	2.94	3.14	3.50
10	Carpio	2.02	4.55	4.92	5.14	5.23
11	Catla	2.29	2.23	4.94	5.04	5.20
12	Rohita	2.29	..	..	..	5.25
13	Gourami	2.17	2.74	4.00	4.15	5.00
14	Chanos	2.20	2.50	2.24	2.35	2.45
15	Cirrhhina	2.21	..	..	..	..
16	Scianidae	0.75	2.43	2.99	3.22	3.22
17	Crabs	0.70	1.05	1.05	1.20	1.42
18	Mirror Carps	2.10	..	..	..	..
19	Macrones	1.92	..	..	..	..
20	Eels	..	2.00	5.10	4.94	3.57
21	Miscellaneous	1.49	1.35	1.51	1.52	1.61



## IV. FISHING CRAFT AND GEARS

## 4.1 Boat Builders in Kerala.

## PUBLIC SECTOR

1. Government Boat Building Yard, Sakthikulangara.
2. Government Boat Building Yard, Beypore.

## PRIVATE SECTOR

## Quilon District

1. Libera Boat Building Yard, Sakthikulangara.
2. Jalaja Boat Building Yard, Sakthikulangara.
3. K. J. Vincent Boat Yard, Kaithavaram, Quilon-12.
4. K. A. Kunjumon Boat Yard, Quilon-12.
5. M. L. Antony Boat Building Yard, Kurapuzha East.
6. Fairdeal Marine Engg. Works, Thoppilkadavu, Quilon.
7. Kochuveetil Boat Yards, Boat Builders, Thoppilkadavu, Quilon-12.
8. Xavier Boat Building Yard, Kaithavaram, Quilon-12.
9. Sheriff Regha Boat Building Yard, Olayil, Quilon.
10. M. C. A. Muthalali Marine Engineering Works, Thoppilkadavu, Quilon.
11. Majeed Boat Building and Workshop, Thevally, Quilon.
12. M/s. K. E. Francis Boat Yard, Kaithavaram, Quilon-12.
13. Modern Boat Building Yard, Aravila, Kavanad, Quilon.
14. Seamaster Boat Yard, Kurecpuzha, Quilon.

## Alleppey District

1. Varghese, Naduvilamulloth, Alleppey (Near Boat Jetty).
2. Kuttappan's Boat Workshop, Alleppey.
3. Mallan's Boat Yard, Alleppey.
4. Dry Dock and Workshop, P. W. D. Alleppey.

## Ernakulam District

1. Shenai Engineering Works, Boat Building Contractors, Cochin-2.
2. Ruby Engineering Works, Cochin-1.
3. K. J. Thomas Mestri and Sons, Cochin-5.
4. Gama-N-Kappa, Cochin-2.
5. K. J. Varuthukutty, & Sons, Cochin-5.
6. Coromandal Engineering Works, Cochin-5.
7. Matha Boat Builders, Cochin-6.
8. K. B. Joseph & Sons, Cochin-6.
9. Vevukat Industries, Ochanthuruth, Cochin-1.
10. K. R. Cleetus, Cochin-5.
11. Manick Peter, Cochin-5.
12. K. J. Xavier and Sons, Cochin-6.
13. Brunton & Co., Engineer & Boat Builders, Cochin.

## Kozhikode District

1. Sri Valsan, Boat Builder, Beypore.
2. Sri O. P. Andikutty, Boat Builder, Beypore.
3. Sri E. P. Thamutty, Boat Builder, Beypore.
4. Sri E. P. Chandukutty, Boat Builder, Beypore.
5. Sri E. P. Pachutty, Beypore.

## 4.2 General information about Departmental Boat Building Yards

	Boat Building Yard Beypore	Boat Building Yard, Sakthikulangara
Year of Commissioning	1964	1954
Location:	At the Fishing Harbour, Beypore since 1976	East of Neendakara Bridge on the Southern bank.
Capacity:	16 Nos. 32' boats at a time (40 boats per year)	16 Nos. 32' boats at a time (38 boats per year)
Ownership:	Department of Fisheries Government of Kerala (except for the period 1966 to 1975, under Kerala Fisheries Corporation's control).	

Have been constructing mechanised fishing boats and other type of wooden boats such as passenger boats. Repairs and servicing of boats also undertaken, equipped with Mechanical Engineering Workshop.

## 4.3 Details of Mechanised Boats Constructed by the Department

Name of Boat Building Yard	1976-77 & 1977-78			1978-79			Remarks
	Size of boat	Number of Boats constructed	Name and Numbers of the boats	Size of boat	Number of Boats constructed	Name and Numbers of the boats	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Government Boat Building Yard, Sakthikulangara	32'	15	KLA 446 to KLA 460	32'	5	N. A.	The 15 boats were set apart for issue to hirers whose boats were lost due to accident (G. O. Rt. 1757/77/DD dated 2-9-1977)  * Out of the 20 boats sanctioned for construction only 5 has been completed during 1978-79.
Government Boat Building Yard, Beypore	32'	15	KLA 461 to KLA 475	32'	8	N. A.	The 15 boats were set apart for issue to hirers whose boats were lost due to accident. * Out of the 20 boats sanctioned for construction only 8 has been completed during 1978-79.
M/s. B. Manick Peter, Boat Builders, Cochin	32'	30	KLA 401 to KLA 430	..	..	..	The 30 boats were for the proposed "Package Scheme," Tanur.
Total		60			13		

\*As per G. O. (Rt) 549/78/DD dated 18-3-1978.

## 4.4 Details of Mechanised boats constructed by the Department during the period from 1-4-1979 to 31-12-1980

Name of the Boat building Yard	Size of boat	No. of boats constructed	Remarks
1. Government Boat Building Yard Sakthikulangara	32'	5	Construction of 20 boats has been sanctioned as per G. O. Rt. 549/78/DD dated 18-3-1978 of which 10 boats have been completed till 31-12-1980.
2. Government Boat Building Yard Beypore	32'	12	Construction of 20 boats has been sanctioned as per the above G. O. The construction of all boats have been completed.
3. K. J. Xavier & Sons, Boat Builders and Contractors Palluruthy, Cochin-16.	25'	10	Construction of 30 boats have been sanctioned as per G. O. Ms. No. 32/79/DD dated 26-2-1979. Out of this 10 boats have been completed till 31-12-1980

## 4.5 District-wise distribution of mechanised craft in Kerala 1977

Sl. No.	Name of District	No. of mechanised boats		
		Length below 30 feet	Length 30 feet and above	Total
(1)	(2)	(3)	(4)	(5)
1	Trivandrum	163	195	358
2	Quilon	314	319	633
3	Alleppey	369	224	593
4	Ernakulam	321	177	498
5	Trichur	18	7	25
6	Malappuram	134	59	193
7	Calicut	128	77	205
8	Cannanore	268	211	479
	Kerala	1715	1269	2984

Source: XII Quinquennial Livestock Census 1977

## 4.6 District-wise distribution of Non-mechanised fishing craft in Kerala 1977

<i>District</i>	<i>Dug out canoes</i>	<i>Plank built boats</i>	<i>Catamarans</i>	<i>Others</i>
(1)	(2)	(3)	(4)	(5)
Trivandrum	1281	377	7568	449
Quilon	1967	915	1723	159
Alleppey	1785	1008	76	1548
Kottayam	745	112	..	355
Idukki	..	..	..	..
Ernakulam	1672	977	..	2492
Trichur	791	402	..	375
Palghat	56	..	..	37
Malappuram	545	605	..	233
Calicut	911	1006	..	763
Cannanore	1337	1072	..	961
Total	11090	6514	9367	7372

Source: XII Quinquennial Livestock Census 1977 and Socio-Economic survey of Fishermen 1979.

## 4.7 District-wise distribution of fishing gears in Kerala 1977

<i>District</i>	<i>Drag nets</i>	<i>Gill nets</i>	<i>Trawl nets</i>	<i>Cast nets</i>	<i>Traps</i>	<i>Shore seiner</i>	<i>Spawn Collecting nets</i>	<i>Others</i>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	5327	1757	1437	2035	1775	650	80	1088
Quilon	3153	1836	1015	1568	1516	388	96	935
Alleppey	5382	4199	2335	2016	2622	1773	277	4041
Kottayam	1074	1034	145	505	636	250	..	1373
Idukki	..	57	..	75	..	..	..	155
Ernakulam	2371	2923	2009	3316	1531	744	445	4186
Trichur	1563	1032	190	549	256	96	159	911
Palghat	456	124	9	690	715	1	..	539
Malappuram	2138	1271	324	363	1023	151	44	536
Calicut	1688	1115	577	1374	1637	274	57	1058
Cannanore	2967	5384	1730	1683	1829	841	325	2588
Total	26119	20732	9771	14175	13540	5168	1483	17410

Source: XII Quinquennial Livestock Census 1977.

## V FISH PROCESSING UNITS

## 5.1 Details of Ice Plants, Freezing Plants and Cold Storages 1980 (Private Sector)

Sl. No.	Name & address of the plant	Year of start	Ice production capacity 24 hours (Tonnes)	Ice storage capacity (Tonnes)	Fresh fish storage capacity (Tonnes)	Freezing capacity in 24 hours (Tonnes)	Frozen fish storage capacity (Tonnes)	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Cannanore District</b>								
1.	M/s. Southern India Marine Products Private Ltd., Kasergode	1971	20	120	..	5	100	
2.	Kanhangad Ice and Cold Storage Plant, Kanhangad	1975	10	50	..	..	..	
3.	Sagar Ice Industries, Pazhayangadi	1971	5	..	..	..	..	
4.	Puthiangadi Ice and Cold Storage Plant	1973	10	50	..	..	..	
5.	Kohinoor Fishing & Canning Co., Cannanore	1972	10	50	..	5	50	
6.	Peevee's Ice Factory, Cannanore	1954	2.50	..	..	..	..	
7.	Pioneer Ice and Cold Storage Factory, South Bazar, Cannanore	1948	2.75	10	..	..	..	
8.	Dharmay Ice Factory, Cannanore	1969	2.50	..	..	..	..	
9.	Janatha Ice Factory and Cold Storage Plant, Cannanore	1975	10	30	..	..	..	
10.	City Ice Factory, Cannanore	1975	2.50	..	..	..	..	
11.	Basic Ice Factory, Cannanore	1965	2	..	..	..	..	
12.	Basic Ice Factory No. 2, Cannanore	1974	8.50	..	..	..	..	
13.	Redac Ice and Cold Storage Factory, Tellicherry	1965	15	50	..	..	..	
14.	Saiboo's Ice Factory and Cool Bar, Tellicherry	1955	1	..	..	..	..	
15.	Star Ice and Cold Storage Plant, Tellicherry	1966	20	20	..	..	..	
16.	Star Ice Factory, Moopan Road, Tellicherry	1972	20	..	..	..	..	
17.	Chandra Ice Factory, O.V. Road, Tellicherry	1960	7	..	..	..	..	
18.	Cannanore Ice Plant and Cold Storage, Ayikkara	1978	15	50	..	..	..	
19.	Telco Ice and Cold Storage Plant, Thalai, Tellicherry	1978	18	..	..	..	..	
Total			181.75	430	..	10	150	
<b>Kozhikode District</b>								
1.	Beypore Ice and Cold Storage Plant, Beypore, Kozhikode-15	1968	7.50	50	..	20	50	
2.	Areeba Ice and Cold Storage, Beypore, Kozhikode-15	1971	10	30	..	..	..	
3.	Mahalekshmi Ice and Cold Storage, Cheruvannur, Feroke	1968	8	40	..	..	..	
4.	City Ice and Cold Storage, Francis Road, Calicut-2	1948	35	65	..	..	..	
5.	Krishna Ice Plant, South Beach Road, Kozhikode	1975	3	..	..	..	..	
6.	Madeena Ice Factory, Arabindaghosh Road, Calicut-1	1966	10	..	..	..	..	
7.	Cool Well Ice Factory and Cold Storage, Vellayil, Kozhikode-11	1967	5	40	..	..	..	
8.	Devi Ice and Cold Storage, Kampuram Beach, Kozhikode-5	1973	10	..	..	..	..	
9.	Rehmaniya Ice Plant, West Hill, Kozhikode-5	1968	10	..	..	..	..	
10.	Seaside Ice and Cold Storage, West Hill, Kozhikode-5	1968	10	..	..	..	..	
11.	Sea Diamond Freezing and Cold Storage, West Hill, Kozhikode-5	1974	10	50	..	3	60	
12.	A. Avran and Sons, West Hill, Calicut-5	1964	10	..	..	3	20	
13.	Kerala Food Packers, Ice Factory, West Hill, Kozhikode-5	1968	10	..	..	..	..	
14.	Marine Ice and Cold Storage, West Hill, Kozhikode-5	1969	5	25	..	..	..	
15.	Indo Marine Agencies, West Hill, Kozhikode-5	1969	25	..	..	5	100	
16.	Union Ice Factory, Puthiyangadi, Kozhikode-5	1969	12	..	..	..	..	
17.	Himalaya Ice Factory, Puthiappa, Kozhikode-5	1972	6	..	..	..	..	
18.	Crescent Ice Factory, Quilandy	1973	12	..	..	..	..	
19.	Brother's Ice Factory, Quilandy	1958	6.50	..	..	..	..	
20.	Everest Ice Factory, Quilandy	1958	0.50	..	..	..	..	
21.	Star Enterprises, Beach Road, Badagara-3	1971	15	30	..	..	..	
22.	Imperial Ice Factory, Badagara	1960	2	15	..	..	..	
23.	Freez India Ice Factory, Badagara	1962	3	..	..	..	..	
24.	Teekay Ice and Cold Storage, P.O. Thikkodi, Calicut-5	1976	6	30	..	..	..	
25.	Ramakrishna Ice Factory, Vengalam, Korapuzha	1976	12	..	..	..	..	
26.	Mayon Ice and Cold Storage, Thikkodi	1977	7	..	..	..	..	
Total			244.50	365	..	31	230	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Malappuram District</b>								
1.	Jancy Scale Ice Factory, Tanur	1952	3	..	..	..	..	..
2.	Tanur Ice and allied Industries, Tanur	1972	6	..	..	..	..	..
3.	Masters Ice Plant, Tanur	1974	10	..	..	..	..	..
4.	United Ice Plant, Tanur	1970	6	..	..	..	..	..
5.	Janatha Ice Plant, Tanur	1971	10	..	..	..	..	..
6.	Salim Brothers Ice Factory and Cold Storage, Tanur	1976	10	30	..	..	..	..
7.	Tirur Ice Manufacturing Co., Tirur	1952	16	..	..	..	..	..
8.	Ice India, Tirur	1971	7	..	..	..	..	..
9.	M.M.K. Ice Plant, Tirur	1973	10	..	..	..	..	..
10.	Eismilla Ice and Cold Storage, Parappanangadi	1975	18	50	..	..	..	..
11.	Kerala Ice and Cold Storage, Parappanangadi	1970	7.50	50	..	..	..	..
12.	Thaha Ice and Cold Storage Plant, Parappanangadi	1976	10.25	50	..	..	..	..
13.	New Ice Co., Neduva, Parappanangadi	1960	3	10	..	..	..	..
14.	Bharath Ice and Cold Storage, Parappanangadi	1971	8	50	..	..	..	..
15.	A.C. Ice Factory, Parappanangadi	1971	1	..	..	..	..	..
16.	Kerala Ice Factory, Beach Road, Ponnani	1975	15	..	..	..	..	..
17.	Crescent Ice and Cold Storage, Beach Road, Ponnani	1971	13	..	..	..	..	..
18.	Trichi Ice Plant, Ponnani	1976	10	..	..	..	..	..
19.	Malappuram Ice Plant, Palapetty	1977	10	..	..	..	..	..
Total			173.75	240	..	..	..	..
<b>Trichur</b>								
1.	Ameen Ice Plant, Azhicode, Azhicode Jetty	1955	14	..	..	..	..	..
2.	Kalpaka Shrimp Exports, Azhicode P.O.	1976	12	..	..	..	..	..
3.	Ideal Enterprises, Ice and Cold Storage Plant, Eriyad P.O.	1974	6	30	..	..	..	..
4.	Sree Ambika Industries Ice Plant, Kara P.O.	1976	12.5	..	..	..	..	..
5.	Vijaya Industries, Ice Plant, Chandrappini P.O.	1970	12	..	..	..	..	..
6.	K.P.S. Company Ice Factory, Nattika P.O.	1971	7	..	..	..	..	..
7.	Raja Ice Factory, Vatanappilly P.O.	1970	10	50	..	..	..	..
8.	K.T. Ice Company, Thrithallur P.O.	1971	12	100	..	..	..	..
9.	Western Ice Factory, Chettuvai P.O.	1970	8	..	..	..	..	..
10.	Crystal Ice Factory, Thiruvathra P.O. Chavakkad	1975	10	..	..	..	..	..
11.	H.M.C. Plant, Ice and Cold Storage, Blangad, Chavakkad	1970	6	10	..	..	..	..
12.	Mubarack Ice Plant, Blangad, Chavakkad	1971	20	100	..	..	..	..
13.	The Canning Industries, Trichur	1947	1	0.50	..	..	..	..
14.	Sansad Ice Plant, Pattalam Road, Trichur	1973	1.50	..	..	..	..	..
15.	Kerala Refrigeration and Engineering Company, Trichur	1965	0.50	..	..	..	..	..
16.	Pio-Food Packers, Kuriachira	1972	1.50	..	..	..	..	..
17.	Marine Ice Factory, Shoranur Road, Trichur	1973	0.50	..	..	..	..	..
18.	James Ice Factory, Post Office Road, Trichur	1971	0.50	..	..	..	..	..
19.	P.E. Varkey and Sons, Trichur	1965	0.50	..	..	..	..	..
20.	West Coast Food Packers, Karanchira	1967	0.50	1.00	..	..	..	..
Total			136.00	291.50	..	..	..	..
<b>Ernakulam District</b>								
1.	M/s. Amert and Company, Ice & Cold Storage, Thoppumpady	1958	10	10	..	2.5	30	..
2.	M/s. Arabian Ice and Industries, Manacherry, Mundenveli Post, Cochin-5	1973	12	12	..	..	..	..
3.	M/s. Burg Ice, Old Railway Station Road, Cochin-18	1967	18	18	..	..	..	..
4.	M/s. Blue Bay Fisheries (P) Ltd., 12/154-A, Kochan-gadi Road, Cochin-2 (Marakadavu, Cochine -2 —Location of Plant)	N.A.	25	25	..	..	150	..



(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5.	The Coastal Ice Factory, Edavanakkad, Vypeen, Vypeen-Pallippuram Road, (V/357, Edavanakkad —(Location of plant)	1968	6	6	..	..	..	
6.	The Cochin Co. Private Ltd., XIX/194-5, Thaikavu Lane, Cochin-5	1968	10	10	..	..	..	
7.	M/s. Cochin Fisheries & Trades, Munambam P.O., Pallipport, N. Parur	1968	10	10	..	..	..	
8.	The Corporation Ice Factory, Murukkumpadam, Cochin-1	1971	6	6	..	..	..	
9.	M/s. Deepa Ice and Cold Storage, Eraveli Road, Extension Cochin-5	1971	35	35	..	..	120	
10.	M/s. Everest Ice and Industries, Varna Company Road, Cochin-5	1962	16	16	..	..	..	
11.	M/s. Four Seasons Fisheries Co., Palluruthy, Cochin-6	1968	10	10	..	3.5	75	
12.	M/s. Island Ice and Cold Storage, Narakkal	1974	10	10	..	..	..	
13.	Sri. K. A. Thomas, Jose Bungalow, Thoppumpady, Cochin-5	1974	9	9	..	..	..	
14.	Narakkal Ice Factory, Narakkal	1970	6	6	..	..	..	
15.	M/s. Nelson Ice Factory, Munambam, North Parur	1970	10	10	..	..	..	
16.	M/s. Periyar Ice & Cold Storage, Ward No. 3, Edavanakkad	1969	10	10	..	..	..	
17.	The Sakthi Ice Factory, Palluruthy Road, Near Government Rice Godown	1972	12	12	..	..	50	
18.	The Southern Fisheries, Corporation, Palluruthy Road, Cochin-5	1972	32	32	..	..	50	
19.	M/s. Stella Ice, Prop: M/s. High Seas Fishing Enterprises, Kochupally Road, Thoppumpady, Cochin-5	1972	6	6	..	..	..	
20.	M/s. Saroja Ice and Cold Storage, Near Palluruthy Government Hospital, Cochin-5	1976	12	12	..	..	..	
21.	M/s. Venus Ice and Industries, XXVIII/846, Palluruthy Road, Cochin-5	1962	4.75	4.75	..	..	..	
22.	M/s. Vijaya Ice Plant, Beach Road, Nazareth, Cochin-2	1971	10	10	..	..	..	
23.	The West Coast Ice Factory, Pallippuram, Cherai P.O.	1972	12	..	..	..	..	
24.	Philson Fisheries, Parry Junction, Palluruthy, Cochin-6	1972	75	..	..	..	..	
25.	M/s. Abad Fisheries, P.B. No. 313, Jew Town Road, Cochin-2	1964	..	..	..	13	100	
26.	M/s. Bharath Sea Foods, P.B. No. 911, Chandiroor, Palluruthy, Cochin-6	1964	..	..	..	10	100	
27.	M/s. Blue Horizon Fisheries, 19/23, Kochangadi, Cochin-5	1972	..	..	..	2	..	
28.	M/s. Blue Water Fisheries Co., 21/948, Edacochin Cochin-6	1972	..	..	..	4	90	
29.	The Canning Industries, Cochin Ltd., Edacochin, Cochin-6	1970	..	..	..	5	100	
30.	The Chemmeens Exports (P) Ltd., P.B. No. 905, Edacochin, Cochin-6	1966	..	..	..	2.5	50	
31.	M/s. Chemmeens Regd., Kochangadi, Cochin-2	1966	..	..	..	10	75	
32.	M/s. Choice Canning Company, XII/1129-A, Deepa Buildings, College Road, P. B. No. 877, Cochin-682005	1962	..	..	..	6	50	
33.	M/s. Coastal Food Packers, P.B. No. 840, Palluruthy, Cochin-6	1968	..	..	..	2.5	100	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
34.	M/s. Crown Fisheries, Jew Town, Kochangadi, Cochin-2	N.A.	..	..	..	3.5	40	
35.	M/s. Cochin Fish Canning Company, Near Aroor Bridge, Edacochin, Cochin-6	1968	..	..	..	1	..	
36.	M/s. Coromandal Fisheries, Nadakkadavu Road, Cochin-6	N.A.	..	..	..	3.5	100	
37.	M/s. Delhi Food Packers, Marakkadavu, Cochin-2	..	..	..	..	2	45	
38.	M/s. Dennies and Thomas, EP-3/375, Murikkum-padam	1969	..	..	..	2	..	
39.	M/s. Laiz Fisheries, Cheriya Kadavu, Kannamali, Cochin-7	..	..	..	..	6.5	110	
40.	M/s. Fancy Foods, 13/1A, Palluruthy Main Road, Cochin-2	1972	..	..	..	10	170	
41.	M/s. George Maijo & Co., Cheriya Kadavu, Cochin-7	1964	..	..	..	12	40	
42.	M/s. Geo Sea Foods, Pallichal Road, Palluruthy, Cochin-6	..	..	..	..	5	130	
43.	M/s. Igloo Refrigerating Co., Thykavu Road, Cochin-5	..	..	..	..	10	150	
44.	M/s. Indian Sea Food Industries, Sea Pride Buildings, Jew Town Road, Cochin-2	1966	..	..	..	3	150	
45.	M/s. India Sea Foods (Regd.) Kannamali, Cochin-7	1964	..	..	..	12	190	
46.	M/s. International Canning Company, Thoppumpady, Cochin-5	..	..	..	..	1	..	
47.	The International Fisheries Limited, HNC Lane, Karuvelippady, Cochin-5	1964	..	..	..	17.5	125	
48.	The Island Sea Foods Pvt. Ltd., Vypeen, Cochin-1	..	..	..	..	18	175	
49.	The John Cherady & Sons Pvt. Ltd., XXIX/82-A, Nadakkadavu Road, Palluruthy, Cochin-6	1969	..	..	..	7.5	200	
50.	M/s. K.E. Kesavan & Sons, Kochangadi, Cochin-2	1972	..	..	..	3	60	
51.	M/s. K. K. Raghavan & Sons, Nambiapuram, Palluruthy, Cochin-6	1972	..	..	..	3	50	
52.	K & R Sea Foods & Industries, Madura Company Road, Palluruthy, Cochin-6	N.A.	..	..	..	2.5	110	
53.	The New India Fisheries Ltd., Karuvelippady, Cochin-5	1962	..	..	..	2	625	
54.	M/s. Ocean Fisheries, Edacochin, Cochin-6	1969	..	..	..	2	100	
55.	M/s. Ocean Flag Fisheries, 28/920-A, Pallichal Road, Cochin-5	1969	..	..	..	4.5	..	
56.	M/s. O. K. Industries, 2/760, Pallupalam Road, Cochin-1	1972	..	..	..	2.5	50	
57.	M/s. Paragon Fisheries, Penstock Factory Road, Palluruthy, Cochin-6	1969	..	..	..	3	50	
58.	M/s. Pearl Fisheries, Edacochin, Cochin-6	1968	..	..	..	4	..	
59.	M/s. Polar Fisheries, Old Power House Lane, Thoppumpady, Cochin-5	..	..	..	..	5	50	
60.	The Sea Foods (Export) Pvt. Ltd., Cheriya Kadavu, Cochin-7	..	..	..	..	1.5	50	
61.	M/s. Super Sea Foods, Palluruthy, Cochin-5	1968	..	..	..	3.5	50	
62.	M/s. T. Thomas & Co., Cheriya Kadavu, Cochin-7	1970	..	..	..	2.5	100	
63.	Toyo Sea Foods, Kochangadi, Cochin-2	1975	..	..	..	2.5	..	
64.	The United Industries, Cochin Ltd., 27/586, Palluruthy Road, Cochin-5	1945	..	..	..	30	100	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
65.	The Universal Trades Corporation, VI/55-A, Cheria-kadavu, Kannamali, Cochin-7	1960	..	..	..	3.5	100	
66.	M/s. Veejayee Freezing and Cold Storage, Kattipparambil, Cochin-7	..	..	..	..	3	150	
67.	M/s. XL Sea Foods, 27/532, Palluruthy, Road, Cochin-5	1966	..	..	..	6	..	
68.	M/s. XL Sea Foods, 19/227A, Cochin	..	..	..	..	1	50	
69.	M/s. Karthika Marine Industries Pvt. Ltd., 18/19, Palluruthy Road, Cochin-5	..	..	..	..	2.5	75	
70.	M/s. Karthika Fishereis, 18/70, Cochin-5	..	..	..	..	1	..	
71.	M/s. Binny Ltd., P.B. No. 6, Cochin-1 (Plot - 11, Cat A. Willington Island, Cochin-3)	1976	..	..	..	..	200	
72.	M/s. Farook Fisheries, Opp: T.B. Hospital, Rameswaram Road, Cochin-5	..	..	..	..	..	25	
73.	The Indo Marine Agencies (Kerala) Pvt. Ltd., P.B. No. 151, Kochangadi, Cochin-2 (located at 19/7, Kochangadi Road, Cochin-2)	..	..	..	..	..	47	
74.	The Indo Marine Agencies (Kerala) Pvt. Ltd. P.B. No. 151, Kochangadi, Cochin-2 (located at 19/37, Kochangadi Road, Cochin-2)	..	..	..	..	..	40	
75.	The Indo Marine Agencies (Kerala) Pvt. Ltd., P.B. No. 151, Kochangadi, Cochin-2 (located at 12/154, Kochangadi Road, Cochin-2)	..	..	..	..	..	125	
76.	The Cochin Co. Pvt. Ltd., Kochangadi, Cochin-5	..	..	..	..	20	135	
77.	M/s. Ninans Ltd., W-XXII/189, Alleppey (located at Plot No. 43, V Cross Road, Willington Island, Cochin-3)	..	..	..	..	..	800	
78.	M/s. Olattapurathu Industries (Regd.), Munambam, Pallipport P.O., N. Parur	..	..	..	..	..	75	
79.	M/s. Roshini Cold Storage Pvt. Ltd., 3rd Main Road, Cochin-5	..	..	..	..	..	200	
80.	M/s. Sea Star Industries, XXVII/532 Palluruthy Road, Cochin-5	..	..	..	..	..	25	
81.	The United Industries Cochin Ltd., P.B. No. 182, Cochin (Location 27/551, Palluruthy Road, Cochin-5)	..	..	..	..	..	200	
82.	Sri V. T. Joseph, Vayalath House, Fort Cochin, Palluruthy Road, Cochin-5	..	..	..	..	..	260	
83.	The Southern Fisheries Corporaion, H & C Lane, Cochin-5	..	..	..	..	10	50	
84.	M/s. Chemmeens (Regd.) Karuvelipady, Cochin-5	..	..	..	..	..	50	
Total			366.75	279.75	..	284.00	6767	
<b>Kottayam District</b>								
1.	Ruby Ice Products, Kottayam	1975	0.50	0.50	..	..	..	
2.	Kohinnoor Ice Plant, Kottayam	1964	1.00	1.00	..	..	..	
3.	Simila Ice Products, Kottayam	1964	1.00	1.00	..	..	..	
4.	Cool Ice Products, Pattathimukku, Changanassery	1972	0.25	0.25	..	..	..	
5.	Mahalekshmy Ice Company, Changanasserry	1977	0.50	0.50	..	..	..	
6.	Mary Fair, Kanjikuzhy, Kottayam	1975	..	..	1	..	..	
7.	Deepthy Cold Storage, Kottayam	1977	..	..	0.75	..	..	
8.	Matha Cold Storage, Changanasserry	1977	..	..	1	..	..	
9.	Palai Cold Storage, Palai	1978	..	..	3	..	..	
10.	Sea Gard Cold Storage, Kanjirappally	1973	..	..	3	..	..	
11.	Kottayam Wholesale Co-operative Society Ltd.	N.A.	..	..	1	..	..	
12.	Bharath Sea Foods, Kodimatha	1978	..	..	60	..	..	
Total			3.25	3.25	69.75	..	..	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Alleppey District</b>								
1.	Matha Ice Plant, Aroor	1975	12	30	..	..	..	..
2.	Kamini Sea Foods Development Area, Aroor	1975	10	100	..	..	..	..
3.	Paragon Industries Development, Area Aroor	1974	12	30	..	..	..	..
4.	Salim Ice and Cold Storage, Chandiroor	1972	10	..	..	..	..	..
5.	Justin Ice Factory, Ezhupunna South	1973	10	..	7	..	..	..
6.	Varuna Ice and Cold Storage, Ezhupunna South	1973	12	50	6	..	..	..
7.	Ezhupunna Ice and Cold Storage, Ezhupunna	1976	12.50	..	..	..	..	..
8.	Seaside Ice Plant and Fish Stall, Arthinkal	1968	5	30	..	..	..	..
9.	Arthinkal Ice and Cold Storage, Sherthalai	1971	5	40	..	..	..	..
10.	Best Ice and Cold Storage, Chethi P.O.	1972	10	40	..	..	..	..
11.	Standard Food Packers, Aroor	1976	10	..	..	..	..	..
12.	Metro Ice and Cold Storage, Thaickal P.O., Sherthalai	1972	15	100	..	..	..	..
13.	New National Ice Factory, Sherthalai	1970	2.50	..	..	..	..	..
14.	Kerala Food Packers, Sherthalai	1967	20	..	..	..	..	..
15.	Eastern Marine Products, Alleppey	1967	..	10	..	..	..	..
16.	Poopally Sea Foods, Seaward, Alleppey, P.B. No. 141	1967	15	50	..	4	50	..
17.	Season Enterprises, Alleppey	1974	10	..	..	2.50	100	..
18.	Cochin Chemicals and Refineries Co. Ltd., Alleppey	1962	10	..	..	..	..	..
19.	Pothan Joseph and Sons, Alleppey	1968	14	50	..	..	..	..
20.	Santhosh Ice Factory, Alleppey	1964	4	..	..	..	..	..
21.	Sea Foods Traders, Chettikkad, Alleppey	1971	10	..	..	..	..	..
22.	Union Ice Factory, Ochira	..	..	..	..	..	..	..
23.	S.D. Ice Factory, Near M.S.M. College, Kayamkulam	1967	6	..	..	..	..	..
24.	Eastern Enterprising Co., Eruva, Kayamkulam	1975	7.5	50.60	..	..	..	..
25.	M.G. Ice Products No. 2, Ramapuram	1975	10	..	..	..	..	..
26.	Sankar Ice Works, Keerikade	1975	12.75	..	..	..	..	..
27.	Malankara Fisheries, Karuvatta	1975	10	75	..	..	100	..
28.	Seven Star Marine, Thottappally	1974	7.5	..	..	..	..	..
29.	Travancore Ice Plant and Cold Storage, Thottappally	1972	20	80	..	..	..	..
30.	Jose Ice Factory and Cold Storage, Thottappally	1967	7.5	..	..	..	..	..
31.	Beena Fisheries Ice Factory, Ambalapuzha	1976	10	..	..	..	..	..
32.	Jelliela Marine Industries Ice Factory, Ambalapuzha	1973	12	..	..	..	..	..
33.	Majestic Sea Foods, Ambalapuzha	1978	12	..	..	..	..	..
34.	Berkath Ice and Cold Storage, Ambalapuzha	1976	7.5	..	..	..	..	..
35.	Raj Industries Ice and Cold Storage, Ambalapuzha	1970	7.5	..	..	..	..	..
36.	Zisco Ice Factory, Kakkazham, Ambalapuzha	1975	10	..	..	..	..	..
37.	Golden Ice Factory, Kakkazham, Alleppey	1970	15	..	..	..	..	..
38.	Pearl Ice Factory and Cold Storage, Punnapra	1972	10	..	..	..	..	..
39.	Coastal Aquatic, Valanjavazhi, Alleppey-5	1975	10	..	..	2.5	100	..
40.	Relish Food, Valanjavazhi, Alleppey	1972	4	..	..	7.5	75	..
41.	Ideal Ice Plant, Neerkunnam	1971	10	..	..	..	..	..
42.	Thayil Ice Plant, Punnapra, Alleppey	1975	12.5	30	..	..	..	..
43.	T.A. Paul & Sons Ice Factory, Punnapra, Alleppey	1967	7	..	..	..	..	..
44.	Himalaya Ice Factory, Punnapra, Alleppey	1967	20	..	..	..	..	..
45.	Amrut Ice Factory and Cold Storage, Alleppey	1966	20	..	..	..	..	..
Total			454	765.60	13	16.50	425	..
<b>Quilon District</b>								
1.	M.G. Ice Factory, Vavvakkavu P.O., Karunagappally	1968	10	..	..	..	..	..
2.	K.E. Kochupappu & Co. Ice Plant, K.S. Puram P.O., Karunagappally	1970	5	..	..	..	..	..
3.	Beena Ice Factory and Cold Storage, K.S. Puram P.O., Karunagappally	1973	6	20	..	..	..	..
4.	Meena Ice Plant, Puthiyakavu, K.S. Puram, P.O., Karunagappally	1975	10	..	..	..	..	..
5.	Subair Kunju Musaliyar Enterprises Ice Plant, Karunagappally P.O.	1974	12	..	..	..	..	..
6.	Associated Food Packers, Puthenthura, P.O., Neendakara	1971	..	6	..	2.5	160	..
7.	Associated Sea Foods, Puthenthura P.O., Neendakara	1978	..	10	..	2.5	50	..



(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8.	Goodwill Ice Factory, Puthenthura P.O., Neendakara	1965	10	..	..	..	..	..
9.	Dev Ice Plant, Parimanam Neendakara P.O.	1975	12	..	..	..	..	..
10.	San Jose Ice Plant, Neendakara P.O.	1976	10	..	..	..	..	..
11.	General Sea Foods Ice Plant, Neendakara	1975	10	40	..	11.5	60	..
12.	General Sea Foods Ice Plant, Neendakara	1975	20	..	..	..	..	..
13.	Mariyalangam Sea Foods Exporter and Ice Factory, Sakthikulangara	1974	10	60	..	2.5	..	..
14.	Prema Sea Foods, Sakthikulangara	1974	20	..	..	7.5	40	..
15.	King Fisheries (P) Ltd., Neendakara	1968	15	120	..	5	50	..
16.	Kerala Sea Foods, Neendakara	1964	5	40	..	5	50	..
17.	Eastern Industries Ice Factory, Sakthikulangara	1971	10	..	..	..	..	..
18.	Capitans Exporting Co., Sakthikulangara	1973	..	..	..	2.5	60	..
19.	Fine Sea Products, Sakthikulangara	1970	..	..	..	1	32	..
20.	J & J Hima Products, Sakthikulangara	1975	10	..	..	..	..	..
21.	Associated Marine Products, Sakthikulangara	1970	..	60	..	1	60	..
22.	Nazir Ice and Cold Storage, Sakthikulangara	1972	13.5	..	..	..	..	..
23.	Morries Combines Ice Plant and Cold Storage, Sakthikulangara	1977	10	..	..	..	..	..
24.	Francson Agencies, Sakthikulangara	1972	..	..	..	2	..	..
25.	Aqua Marine Industries, Sakthikulangara	1975	10	..	..	..	..	..
26.	M/s. Sea and Sand Enterprises, Sakthikulangara	1974	40	5	..	2.5	..	..
27.	Hima Ice Producers, Sakthikulangara	1971	16	..	..	..	..	..
28.	Oceanic Products Exporting Co., Sakthikulangara	1964	34	30	..	10	200	..
29.	Asiatic Sea Foods, Sakthikulangara	1967	..	..	..	5	150	..
30.	Kailas Ice and Cold Storage, Sakthikulangara	1974	10	..	..	..	..	..
31.	Austin and Philo Marine Products, Sakthikulangara	1967	..	..	..	1	50	..
32.	Esjays Industries, Sakthikulangara, Quilon-3	1971	10	..	..	..	..	..
33.	Sreekrishna Ice Factory, Sakthikulangara	1970	5	..	..	..	..	..
34.	M. Abdul Rahimankunju Ice Factory, Kavanad	1978	10	..	..	..	..	..
35.	Esmarios Export Enterprises, Kavanad	1968	30	60	..	13	150	..
36.	Santhosh Ice Plant, Kavanad	1973	6	..	..	..	..	..
37.	Sagara Sampath Company, Kuripuzha, Perinad, Quilon	1976	10	30	..	2.5	100	..
38.	Super Aquatic Products (P) Ltd, Vallikeezh, Quilon	1976	10	50	..	5	100	..
39.	Melayil Industries and Commercial Enterprises, Mathilil	1969	20	50	10	13	100	..
40.	Coastal Ice Products, Vaddy, Quilon	1977	13.5	30	..	..	..	..
41.	Janatha Ice and Cold Storage, Vaddy, Quilon	1969	14	..	..	..	..	..
42.	Sree Muruga Industries, Ice Factory, Beach North, Quilon	1973	6	..	..	..	..	..
43.	Brilliant Ice Factory, Beach East, Quilon	1960	9	..	..	..	..	..
44.	Sree Rama Marine Products, Kilikolloor, Quilon	1977	12	30	..	5	100	..
45.	Quilon Sea Foods, Chavara South	1975	..	60	..	1	60	..
46.	Poillakkada Fisheries, Parameswara Nagar, Quilon	1974	20	40	..	7.5	100	..
Total			484	741	10	108.50	1672	..

#### Trivandrum District

1.	Alliance Ice Factory, Alencode	1973	7	..	..	..	..	..
2.	Himalayas Ice Factory, Chalai, Trivandrum	1970	3	..	..	..	..	..
3.	Chali Ice and Cold Storage, Vallakkadavu, Trivandrum	1967	7	35	..	..	..	..
4.	Leena Ice and Cold Storage, Vizhinjam	1968	7	..	..	..	..	..
5.	Shirin Ice and Cold Storage, Vizhinjam	1977	12	..	..	..	..	..
6.	Maya Ice Factory, Vizhinjam	1972	7	..	..	..	..	..
7.	Godenni Ice Factory, Poovar	1971	6	..	..	..	..	..
8.	M/s. India Sea Foods, Nemom	1967	10	15	..	..	..	..
Total			59	50	..	..	..	..
Grand Total			2103	3166.10	92.75	450	9244	..



## 5.2 Details of Ice Plants, Freezing Plants and Cold Storages—1980 (Public and Co-operative Sector)

## (a) PUBLIC SECTOR

Sl. No.	Name and address of the Plant	Year of start	Ice production capacity in 24 hrs. (Tonnes)	Ice storage capacity in 24 hrs. (Tonnes)	Fresh fish storage capacity (Tonnes)	Freezing capacity in 24 hrs. (Tonnes)	Frozen fish storage capacity (Tonnes)	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Cannanore District</b>								
1.	Government Ice and Cold Storage-cum-Freezing Plant, Kasargode	1969	5	25	15	3	100	
2.	Government Ice and Cold Storage Plant, Madai	1963	5	25	25	..	..	
3.	Government Ice and Cold Storage-cum-Freezing Plant, Cannanore	1969	15	50	50	8	90	
4.	Government Ice and Cold Storage Plant, Thalayi	1968	10	25	25	..	..	
5.	Government Ice-cum-Freezing Plant, Baliapattam (under construction)	..	..	..	..	..	..	
Total			35	125	115	11	190	
<b>Calicut District</b>								
1.	Ice Plant and Cold Storage, Kerala Fisheries Corporation, West Hill, Kozhikode-5	1955	5	25	30	3	40	
2.	Government Ice & Cold Storage, Beypore, Kozhikode-15	1975	25	150	75	5	175	
3.	A.R.C. Plant, Kozhikode, Regional Fish Marketing Society, Pudiappa, Kozhikode-5	1975	6	18	..	..	..	
4.	Government Ice and Cold Storage Plant, Quilandy	1968	10	25	25	..	..	
Total			46	218	130	8	215	
<b>Malappuram District</b>								
1.	Government Ice and Cold Storage, Plant, Ponnani	1971	10	25	25	..	..	
2.	Government Ice and Cold Storage Plant, Tanur	1965	5	25	25	..	..	
Total			15	50	50	..	..	
<b>Trichur District</b>								
1.	Government Ice and Cold Storage Plant, Azhicode	1967	5	25	25	3	25	
2.	Government Ice and Cold Storage Plant, Blangad, Chowghat	1964	5	25	25	..	..	
3.	Simple Cold Storage Plant, Trichur	1967	..	..	1	..	..	
Total			10	50	51	3	25	
<b>Ernakulam District</b>								
1.	Travancore Cochin Prawn Curer's Marketing Society Ltd., No. 2831, 12/118, Kochangadi, Marakkadavu, Cochin-2	1948	10	..	..	4	60	
2.	Kerala Fisheries Corporation Ltd., P.B. No. 1115, Shanmughom, Road, Cochin-11	1962	20	75	40	15	600	
3.	Kerala Fisheries Corporation, Wellington Island	1974	..	..	..	..	300	
Total			30	75	40	19	960	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Alleppey District</b>								
1.	Government Ice Factory, Kayamkulam	1961	5	15	15	..	..	
2.	Simple Cold Storage Unit, Chengannur	1967	..	..	1	..	..	
3.	Government Ice and Cold Storage Plant, Alleppey	1976	5	25	15	3	15	
Total			10	40	31	3	15	
<b>Kottayam District</b>								
1.	Government Cold Storage, Kottayam	1967	..	..	1	..	..	
Total			..	..	1	..	..	
<b>Quilon District</b>								
1.	Kerala Fisheries Corporation Ice & Freezing Plant, Neendakara	1957	25	100	100	12	125	
2.	Simple Cold Storage, Punalur	1967	..	..	1	..	..	
Total			25	100	101	12	125	
<b>Trivandrum District</b>								
1.	Government Ice and Cold Storage Plant, Vizhinjam	1959	5	15	15	..	..	
2.	Government Ice Plant, Attipra	1967	10	50	50	..	..	
Total			15	65	65	..	..	
Grand Total <sup>1</sup>			186	723	584	56	1530	

## 5.3 List of Canning Factories—1980

Sl. No.	Name and address	Year of start	Installed canning capacity/24 hours	Remarks
(1)	(2)	(3)	(4)	(5)
1	King Fisheries (P) Ltd., Neendakara, Quilon	1973	12000	Tins
2	Relish Foods, Valanjavazhi, Alleppey-5	1972	3000	canns
3	M/s Abad Fisheries, Jew Town Road, Cochin-2		2	Tonnes
4	M/s Ama Sea Foods, Kochangadi, Cochin-2		3	"
5	M/s Asteria Enterprises, Thoppumpady, Cochin-5		1	"
6	M/s Choice Canning Company, Kannamali, Cochin-5		1.6	"
7	M/s Cochin Fish Canning Co., Near Aroor Bridge, Cochin-6		10	"
8	M/s Deepa Export Enterprises, Pullardesam Road, Palluruthy, Cochin-6		5	"
9	M/s Geo Sea Foods, Pallichal Road, Palluruthy, Cochin-6		2	"
10	M/s International Canning Co., Thoppumpady, Cochin-5		0.65	"
11	M/s Island Club Canning Co., Vypeen, Cochin-1		2.5	"
12	M/s KRK Fisheries, Vypeen, Cochin-1		3	"
13	M/s M. K. Fisheries, Cheriya Kadavu, Cochin-7		1.28	"
14	The New India Fisheries, Karuvelippady, Cochin-5		4.00	"
15	Travancore Cochin Prawn Curers' Co-operative Marketing Society Ltd., 12/118, Kochangadi, Cochin-2		1.25	"
16	The Universal Trades Corporation, 6/55-A, Cheriya Kadavu, Kannamali, Cochin-7		2	"
17	The United Industries, Cochin Ltd., Kochangadi, Cochin-2		5	"
18	Western Canning Co., Malippuram, Cochin-1		1.8	"
19	M/s XL Sea Foods, 19/261 & 1262, Karuvelippady, Cochin-5		1.92	"
20	Pio Food Packers, Trichur	1972	10	
21	West Coast Food Packers, Karanchira	1967	5	"
22	Canning Industries, Trichur	1947	15	"
23	Dalco Canning Unit, Trichur	1962	10	"
24	Mermaid Canning Factory, Vengalam, Quilandy	1969	6000	canns
25	Fish Trading Corporation, Quilandy	1976	10	tonnes

**6.1 List of Export Agencies of Fishery Products from Kerala**

1. Andra Marine Exports Ltd., P. O. Kavanad, Quilon-691003.
2. Asiatic Sea Foods, Sakthikulangara, Quilon-691581.
3. Associated Food Packers, Puthenthura, Neendakara, Quilon.
4. Associated Marine Products, Sakthikulangara, Quilon.
5. M/s. Austian & Philo Marine Products Exporting, Sakthikulangara.
6. Capithan Exporting Company, Fort Road, Sakthikulangara, Quilon.
7. Esmario Export Enterprises, Kavanad P. O., Quilon.
8. Fish India Corporation, Muar Buildings, Kadamukku, Quilon.
9. General Sea Foods, Mundakal West, Quilon.
10. Kerala Sea Foods, Neendakara P. O., Quilon.
11. King Fisheries, Neendakara, P. O., Quilon.
12. King Fisheries (P) Ltd., Neendakara P. O.
13. Marine Maiden, Sakthikulangara, Quilon.
14. Marialayam Sea Foods Exporters, Sakthikulangara.
15. Mclayil Fisheries Corporation, P. B. No. 83, Quilon.
16. Mclayil Industries and Commercial Enterprises, P. B. No. 83, Quilon.
17. Oceanic Products Exporting Company, Sakthikulangara.
18. Oceanic Wealth, Sakthikulangara, Quilon.
19. Poilakada Fisheries Ltd., Puthenthode, Parameswara Nagar, Quilon.
20. Prema Sea Foods, Mundakkal West, P. B. No. 29, Quilon.
21. Fine Sea Products Exporting Company, Sakthikulangara.
22. Francson Agencies, Sakthikulangara.
23. Seafare Mathilil, P. O. Perinad, Quilon.
24. Super Aquatic Products (P) Ltd., Vallikeezh, Quilon.
25. Sree Rama Marine Products; Kilikolloor, Quilon-4.
26. Soni Fisheries, Mahar Buildings, Mundakal, Quilon.
27. Quilon Sea Foods, Remesh Vihar, MCNO 200, Ward No. XIII, Mundakal West P. O.
28. M/s. Sea and Sand Enterprises, Sakthikulangara.
29. M/s. Sagara Sambath Company, Kureepuzha, Perinad P. O., Quilon.
30. Seven Star Marine, Thottappally.
31. Kerala Exporting Agencies, Thottappally.
32. Chakara Foods, Thottappally.
33. Relish Foods, Valanjavazhi, Ambalapuzha.
34. Kerala Food Packers, Sherthalai.
35. Pooppally Sea Foods, Alleppey.
36. Season Enterprises, Alleppey.
37. Mankott and Punchiri, Alleppey.
38. M/s. Abad Fisheries, Abad Buildings, Post Box No. 313, Cochin-682002.
39. M/s. Ama Sea Foods, Kochangadi, Cochin-2.
40. M/s. Ashra Sea Foods, 19/388, Cochin-5.

41. M/s. Beena Fisheries, Karuvelippady, Cochin-5.
42. The Brooke Bond India Ltd., Post Box No. 514, Willingdon Island, Cochin-3.
43. M/s. Brilliant Exports, P. B. No. 909, XVIII/540, Vadakkathode Lane, Palluruthy, Cochin-6.
44. M/s. Bright Traders, C. C. 7/924, Panayappilly, Cochin-682002.
45. M/s. Bell Foods (Marine Division), XVI/1418, Kochupally Road, Cochin-5.
46. M/s. Bharath Food Packers, Edacochin, Cochin-6.
47. M/s. Bellamy Marine Exports (P) Ltd., 12/154-A, "Bay Bridge", Kochangadi, Cochin-682002.
48. M/s. Chandra Corporation, XXX/682, M. G. Road, Ernakulam, Cochin-16.
49. M/s. Chemmeens (Regd.), Kochangadi, Cochin-5.
50. M/s. Christopher and Co., Post Bag No. 873, XXVIII/350-A, T&R Cross Road, Thoppumpady, Cochin-5.
51. M/s. Alpha Sea Foods, Post Box No. 848, Cochin-5.
52. M/s. Antique Sea Foods, P. B. No. 910, Palluruthy, Cochin-16.
53. M/s. Anupama Sea Food Exports, 13/786, Karuvelipady, Cochin-5.
54. M/s. Blue Water Fisheries Co., 21/948, Edacochin, Cochin-6.
55. M/s. Blue Sea Foods, XIV/1016, Varma Co. Road, Chullikkal, Cochin-682005
56. M/s. Blue Bay Fisheries Pvt. Ltd., 12/154-A, Kochangadi Road, Cochin-2.
57. M/s. Brite Exports, C. C. 18/381, Palluruthy Nada, Cochin-6.
58. M/s. Besto Sea Foods, C. C. 18/315, Palluruthy Nada, Cochin-6.
59. M/s. Blue Seal Fisheries, Tak Buildings, Panayappally, Cochin-2.
60. The Canning Industries (Cochin) Ltd., Edacochin, Cochin-6.
61. M/s. Chemmeens Exports Pvt. Ltd., P. B. No. 905, Edacochin, Cochin-682006.
62. M/s. Choice Canning Co., Kannamaly, Cochin-7.
63. M/s. Coastal Sea Foods, P. B. No. 908, Cochin-6.
64. The Cochin Co. (P) Ltd., Post Box No. 1712, XXX/682, M. G. Road, Ernakulam, Cochin-16.
65. M/s. Cochin Ice & Cold Storage, XII/154, Kochangadi, Road, Cochin-2.
66. Coromandal Fisheries, Nadakadavu Road, P. B. No. 920, Cochin-6.
67. M/s. Cochin Company, M. G. Road, Ernakulam, Cochin-682016.
68. M/s. Coral Sea Foods, 428/XVI, Cochin-5.
69. M/s. Danar Fisheries, Karuvelipady, Cochin-5.
70. M/s. Discon Foods (P) Ltd., 1/95, Rose Street, Cochin-1.
71. M/s. Dorcas Ocean Delights, 27-Alappad Road, Ravipuram, Cochin-682016.
72. M/s. Eduthan Fishing Corporation, 31/1183, Chittoor Road, Cochin-16.
73. M/s. Fibrite Fisheries, 18/395, Palluruthy, Cochin-6.
74. M/s. Fathom Exports, "Sebrof House", Willington Island, Cochin-682003.
75. The General Export Co., Post Box No. 537, Willington Island, Cochin-3.
76. The George Maijo & Co., Post Box No. 831, Cochin-5.
77. M/s. Green Sea Enterprises, 18/1421, Pallichal Road, Cochin-5.
78. M/s. Cochin Fish Canning Co., Post Box No. 907, Edacochin, Cochin-6.
79. The Cordel Sea Foods (P) Ltd., C. C. XVIII/121, Palluruthy, Cochin-5.
80. M/s. Cochin Marine Agencies, XIII/953, Cochin-682005.
81. M/s. Caprican Exports (P) Ltd., XXV/1947, Vyttila, Cochin-682019.
82. M/s. DCM Marine Products, XIII/501, Kochangadi, Cochin-5.
83. M/s. Dennis & Thomas, Sadiq Manzil, Cochin-2.

84. M/s. D. C. Johar & Sons Ltd., Market Road, Cochin-682011.
85. M/s. Elite Sea Foods, Vypeen, Cochin-1.
86. M/s. Empire Fisheries, C-38, Giri Nagar, North Cochin-682020.
87. M/s. Foreign Trades, Post Bag No. 339, Jew Town, Cochin-2.
88. M/s. Fine Food Products, P. B. No. 392, Kochangadi, Cochin-682002.
89. M/s. Geo Sea Foods, P. B. No. 906, Palluruthy, Cochin-6.
90. The Global Enterprises, P. B. No. 283, 3/160, Kottukulam Road, Cochin-682002.
91. M/s. Hindustan Exports Corporation, 858/A, Edacochin, Cochin-682006.
92. M/s. India Sea Foods (Regd.) P. B. No. 818, Thoppumpadi, Cochin-5.
93. The Indo Marine Agencies (Kerala) (P) Ltd., Post Box No. 825, Cochin-682005.
94. M/s. Interfoods, 13/1066, Interprint House, Cochin-5.
95. M/s. Indian Frozen Foods, XII/1129-A, Deepa Buildings, College Road, Cochin-682005.
96. M/s. J. M. T. Productions, 19/118, Chullicka, Cochin-5.
97. M/s. Jairani Exports, 1st Floor, Sassoon Mansion, Jew Town, Cochin-682002.
98. The Kerala Fine Arts, Jew Town, Mattancherry, Cochin-682002.
99. The Kerala Fish Marketing Co-op: Federation Ltd. No. F (E) 353, 32, Carmel Building, 2nd Floor, Banaerjee Road, Cochin-18.
100. M/s. Khadeeja Industries, XVI/654-A, Thoppumpady, P. B. No. 865, Cochin-5.
101. The Konkan Canned Foods Products Ltd., 1/1342, Kunnumpuram, Cochin-1.
102. The Karthika Marine Industries (P) Ltd., 37/521-A, Chittoor Road, Cochin-682018.
103. M/s. Kerala Trades and Exports (Regd.), Post Bag No. 1, Cochin-20.
104. M/s. Kumar Marine Industries, P. B. No. 90, Palluruthy, Cochin-6.
105. M/s. Marine Shells, 27/539, Palluruthy Road, Cochin-5.
106. The India Sea Products, XXI/857, Kalapurakal House, Edacochin, Cochin-6.
107. The International Canning Co., Thoppumpady, Cochin-5.
108. M/s. Indian Timber Traders (Marine Division), Post Box No. 1919, S. R. M. Road, Ernakulam, Cochin-18.
109. M/s. J. B. Pai & Co., XII/246, Jew Town, P. B. No. 229, Cochin-2.
110. M/s. Jose Fisheries, XVIII/310, Kochangadi, Cochin-5.
111. M/s. K. E. Kesavan & Sons, VII/380 (A), Kochangadi Road, P. B. No. 322, Cochin-682002.
112. The Kerala Fisheries Corporation Ltd., P. B. No. 1115, Cochin-11.
113. M/s. K. Gopinath Bros., 12/285, Jew Town, Cochin-2.
114. M/s. K. K. Raghavan & Co., Post Box No. 851, Cochin-5.
115. M/s. Kerala Exports (P) Ltd., XXI/1758, Palluruthy, Cochin-682006.
116. M/s. Karthika Fisheries, XVIII/68, Palluruthy Road, Thoppumpady, Cochin-682005.
117. M/s. Kaminee Sea Foods (P) Ltd., XXXV/892, Manikoth Cross Road, Cochin-682016.
118. M/s. Lords International, Karuvelipadi, Cochin-5.
119. M/s. Marshal Sea Foods, P. B. No. 925, Palluruthy, Cochin-6.
120. M/s. Menon Bros. & Co., P. O. Box 295, Jew Town, Cochin-2.
121. M/s. Mini Sea Foods, XVI/343 (A) Kazhuthumuttu, Cochin-5.
122. M/s. Malayalam Enterprises, 21/948, Blue Water Buildings, Edacochin, Cochin-6.
123. M/s. Marine Food Packers, XXV/8391, Rameswaram Lane, Cochin-682005.
124. M/s. Mendez Marine Products, XXI/920, Edacochin, Cochin-682006.
125. M/s. Nimas Exports, Post Box No. 869, Cochin-5.



126. M/s. Narang Fisheries, Jew Town, Cochin-2.
127. M/s. Ocean Fisheries, Edacochin, Cochin-6.
128. The O.K. Industries, P. B. No. 23, Cochin-1.
129. M/s. Oriental Chemical Industries, 15/90, Nazareth, Cochin-682002.
130. M/s. Olattupurath Industries, XXIX/491 (A), Waterland Road, Palluruthy, Cochin-6.
131. M/s. Paramount Fisheries, XXVII/539, Palluruthy, Cochin-5.
132. The Prawns International Corporation, Post Box No. 804, Cochin-5.
133. M/s. Premier Marine Products, Division No. XIII/516, Kochangadi, Cochin-5.
134. M/s. Packfresh Sea Foods, XIII/717, Thykavu Road, Cochin-682005.
135. M/s. M.K. Fisheries Cheriakadavu, Kanamalai, Cochin-7.
136. M/s. M.R. Velayudhan & Co., Seapride Building, Kochangadi, Cochin-2.
137. M/s. Mubarak Fisheries, P.B. No. 219, Kochangadi, Cochin-2.
138. M/s. Menco Fisheries, XVIII/1332, Thoppumpady, Cochin-5.
139. M/s. Naz Trading Co., 12/127, Kochangadi, Road, Cochin-2.
140. M/s. Metro Exports, Sreevas, XVIII/121, Parry Junction, Cochin-682005.
141. M/s. National Seafoods Co., 8/1157, Manthara Road, Cochin-682002.
142. M/s. Oceanflag Fisheries, XXVIII/920-A, Pallichal Road, Cochin-5.
143. M/s. Oriental Export Agencies, Cochin-2.
144. M/s. Osscys Enterprises, Palluruthy, Building No. XXI/3367, Cochin-6.
145. M/s. Paragon Sea Foods, 28/221, Thoppumpady, Post Box No. 817, Cochin-5.
146. M/s. Pearl Fisheries, P.B. No. 915, Edacochin, Cochin-6.
147. M/s. President Sea Foods, P. B. No. 926, Cochin-6.
148. M/s. Pam. Exports, Thoppumpady, Cochin-5.
149. M/s. Rafiq Industries, XII/73, Darussalam Road, Cochin-2.
150. The. Rallis India Ltd., (Merch-Seafoods), Malsyapuri P. O., Cochin-682029.
151. M/s. Ragina Sea Foods, XXVII/559, Palluruthy, Cochin-682006.
152. M/s. Ruby Marine Foods, XXVII/559, Palluruthy, Cochin-682005.
153. M/s. Regal Fisheries, Corporation, Karuvelipady, Cochin-5.
154. M/s. Sea Pack Exports, Cochin-682007.
155. M/s. Seamates, India, Pallichal Road, Cochin-682005.
156. M/s. Seastar Industries, XXVII/532, Palluruthy Road, Cochin-682005.
157. M/s. Shyam Vittal & Co., Post Box No. 239, Bazar Road, Mattancherry, Cochin-682002.
158. M/s. Star Seafoods, XIII/639, Kochangadi, Cochin-682002.
159. M/s. Suresh Saipal & Co., Jew Town, Cochin-682002.
160. M/s. Sithara Marine Products, P.B. No. 908, Palluruthy, Cochin-682006.
161. M/s. Sea Marvel Fisheries, 21(807)6, Edacochin, Cochin-682006.
162. M/s. Swit Marketeers (P) Ltd., Administration Office, Thoppumpady, Cochin-682005.
163. M/s. Three Aces, P. O. Box 838, Kochangadi, Cochin-682005.
164. The Travancore-Cochin Prawn Curer's Co-operative Marketing Society Ltd., No. 2831, Cochin-682002.
165. M/s. Toyo Sea Foods, P. B. No. 300, Kochangadi, Cochin-682002.
166. The Rannaq International Ltd., Jose Annex 2nd Floor, M.G. Road, Cochin-682016.
167. M/s. Rejini Ice Cold Storage, Palluruthi, Cochin-6.
168. M/s. Revathy Exports (P) Ltd., XXV/1947, Archana Vytla, Cochin-682019.
169. M/s. Rashmi Marine Products, P. B. No. 928, Palluruthy, Cochin-682006.
170. M/s. Sea Foods, (Export) (P) Ltd., Cheriakadavu, Kannamaly P. O., Cochin-682005.
171. M/s. Sea Queen Fisheries, 18/62, Kochangadi, Cochin-682005.
172. M/s. Shah's Frozen Foods, Raghukulam, 1/1342, Kunnumpuram, Cochin-682001.
173. M/s. Snowflakes International, P.B. No. 870, H&C Lane, Cochin-682005.
174. M/s. Super Sea Foods, Palluruthy, Cochin-682005.
175. M/s. Searoyal, Palluruthy Nada, Cochin-682006.
176. M/s. Sujet Enterprises, 14/64, Sadiq Manzil, New Road, Cochin-682002.
177. M/s. Sheeba Fisheries, XVI/1440, Cochin-682005.
178. M/s. Swapna Sea Foods, P.B. No. 278, Cochin-682002.
179. M/s. Three Star, 15/30, Parawana Junction, Cochin-2.
180. M/s. Tropical Traders, P. B. No. 337, Jew Town, Cochin-682002.
181. M/s. Transea Foods Private Ltd., 153, A/U Temple Road, Alwaye-1.
182. M/s. Thekkekkara Marine Products, XVIII/1448, Pallichal Road, Thoppumpady, Cochin-682005.
183. M/s. Universal Traders Corporation., P.B.No. 287, XIII/3, Main Road, Cochin-682002.
184. M/s. Vijaya Industries, 20/31, (1) Karuvelipadi, Post Box No. 828, Cochin-682005.
185. M/s. 'XL' Sea Foods, P. B. No. 846, Cochin-682005.
186. M/s. Seafel Marines (P) Ltd., XVIII/1421, Pallichal, Thoppumpady, Cochin-682005.
187. M/s. Blue Ribbon Enterprises, XVIII/9, Thoppumpady, Cochin-682003.
188. M/s. Pamco Marine Exports, XXII/1033, Luke View Edacochin, Cochin-6.
189. The Kerala State Small Industries Corporation Ltd., Jose Annexe Building, Cochin-682016.
190. M/s. United Exporting Co., XIV/1078, Rameswaram Lane, P. O. Box 833, Karuvelipady, Cochin-682005.
191. M/s. V. I. P. Sea Foods (Regd.) 16/93, R.C. Road, Cochin-682005.
192. M/s. Philson Fisheries, XVIII/60-A, Cochin-5.
193. M/s. Veeteejay Exports (P) Ltd., CC. XVIII/104, Cochin.
194. M/s. Sujet Industries, Maliyakal, Edanakad P. O., Kerala.
195. Beypore Sea Food Agencies, P. O., Beypore.
196. A. Vasu, Sea Food Exporter, Puthiappa P. O., Puthiangadi, Calicut-5.
197. Sri Ummer Hajeer, Fish Merchant, Pallikkara.
198. Sri Hamsa, Fisher Merchant, Pallikkara.
199. Kohinoor Fishing and Canning Company, Thayyil.

## 6.2 Pattern of Marine Products Exports through the ports of Kerala

Sl.No.	Item		1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Frozen Shrimp	Q	..	18016	22625	25798	21245	30227	28356	24717	26616	26742
		V	..	252382	378701	454352	362607	548050	810323	672424	742244	973377
2.	Frozen Froglegs	Q	..	892	1163	1668	710	564	1229	1119	1449	1922
		V	..	9240	14471	28273	13181	13278	33718	29042	35692	44721
3.	Frozen Lobster Tails	Q	..	225	183	163	176	137	230	309	326	319
		V	..	7412	6729	5153	6678	6691	14778	19380	23441	27381
4.	Fresh and Frozen Fish	Q	..	neg.	8	9	..	..	8	12	503	592
		V	..	1	42	33	..	..	79	118	1210	3236
5.	Frozen Cuttle Fish and Fillets	Q	..	..	..	..	137	926	190	714	669	946
		V	..	..	..	..	1944	26978	3161	11405	12216	27968
6.	Canned Shrimp	Q	..	1776	1042	1920	1428	254	102	104	188	134
		V	..	28735	20703	47144	45742	5844	3935	4570	8694	6043
7.	Dried Shrimp	Q	..	536	123	271	89	88	8	3	1	10
		V	..	3370	1334	3089	1235	993	126	68	27	174
8.	Dried Fish	Q	..	..	..	..	..	..	1	..	..	Neg.
		V	..	..	..	..	..	..	2	..	..	5
9.	Shark Fins and Fish Maws	Q	..	13	2	6	4	Neg.	5	..	..	Neg.
		V	..	199	16	70	42	7	43	..	..	75
10.	Other items	Q	..	111	373	1081	740	282	957	824	2103	1323
		V	..	259	696	2725	2176	1122	13319	9748	26661	15723
Total		Q	..	21569	25519	30826	24529	32478	31155	27802	31856	31988
		V	..	301598	422692	540839	433605	602963	879484	746755	850185	1098703

Source: M.P.E.D.A., Cochin.

## 6.3 Annual Growth Rate in Marine Products Exports through the ports of Kerala

Year	Quantity (tonnes)	Value (Rs. crores)	Average Unit value realisation	Annual growth rate	
				Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)
1970	24077	27.52	11.43	(+)5.6	[(-)0.6
1971	21569	30.16	13.98	(-)10.4	(+)9.6
1972	25519	42.27	16.56	(+)18.3	(+)40.2
1973	30826	54.08	17.54	(+)20.8	(+)27.9
1974	24529	43.36	17.68	(-)20.4	(-)19.8
1975	32478	60.30	18.57	(+)32.4	(+)39.1
1976	31155	87.95	28.23	(-)4.1	(+)45.9
1977	27802	74.68	26.86	(-)10.8	(-)15.1
1978	31855	85.02	26.69	(+)14.6	(+)13.8
1979	31988	109.87	34.35	(+)0.4	(+)29.2

Source: M.P.E.D.A., Cochin.

## 6.4 Month-wise Export of Marine Products through the ports of Kerala during 1979

Q: Quantity in Kgs.

V: Value in Rs.

Quarter	Month		Cochin	Calicut	Total	
(1)	(2)		(3)	(4)	(5)	
Quarter I	January	Q	2418490	91800	2510290	
		V	80944681	363162	81307843	
	February	Q	2172474	..	2172474	
		V	63025106	..	63025106	
	March	Q	4988583	60920	5049503	
		V	165309678	326261	165635939	
	Quarter I Total	Q	9579547	152720	9732267	
		V	309279465	689423	309968888	
	Quarter II	April	Q	3140495	76250	3216745
			V	117701700	392046	118093746
May		Q	3071010	24300	3095310	
		V	108348846	119622	108468468	
June		Q	2817599	..	2817599	
		V	102161017	..	102161017	
Quarter II Total		Q	9029104	100550	9129654	
		V	328211563	511668	328723231	
Quarter III		July	Q	2932954	..	2932954
			V	115203369	..	115203369
	August	Q	2907831	..	2907831	
		V	100526409	..	100526409	
	September	Q	2531169	..	2531169	
		V	90570638	..	90570638	
	Quarter III Total	Q	8371954	..	8371954	
		V	306300416	..	306300416	
	Quarter IV	October	Q	1337221	..	1337221
			V	43032465	..	43032465
November		Q	1743554	72004	1815558	
		V	62936876	390455	63327331	
December		Q	1571949	29340	1601289	
		V	47126669	224725	47351394	
Quarter IV Total		Q	4652724	101344	4754068	
		V	153096010	615180	153711190	
TOTAL		Q	31633329	354614	31987943	
		V	1096887454	1816271	1098703725	

Source: M.P.E.D.A., [Cochin.

## 6.5 Month-wise Export of Marine Products from India and Kerala during 1979

LIBRARY, CENTRAL MARINE FISHERIES  
RESEARCH INSTITUTE, ERNAKULAM  
COCHIN-682018, INDIA

Q: Quantity in tonnes.  
V: Value Rs. in lakhs.

Quarter	Month		India	Kerala	Percentage of Kerala to India
(1)	(2)		(3)	(4)	(5)
Quarter I	January	Q	8111	2510	30.9
		V	2092	813	38.9
	February	Q	8124	2172	26.7
		V	2100	630	30.0
	March	Q	11406	5050	44.3
		V	2790	1657	59.4
	Quarter I Total	Q	27641	9732	35.2
		V	6982	3100	44.4
Quarter II	April	Q	9490	3217	33.9
		V	2817	1181	41.9
	May	Q	7578	3095	40.8
		V	2214	1085	49.0
	June	Q	7134	2818	39.5
		V	2293	1021	44.5
	Quarter II Total	Q	24202	9130	37.7
		V	7324	3287	44.9
Quarter III	July	Q	6343	2933	46.2
		V	2097	1152	54.9
	August	Q	5803	2908	50.1
		V	2001	1005	50.2
	September	Q	7082	2531	35.7
		V	2352	906	38.5
	Quarter III Total	Q	19228	8372	43.5
		V	6450	3063	47.5
Quarter IV	October	Q	6802	1337	19.7
		V	1828	430	23.5
	November	Q	6606	1816	27.5
		V	1652	633	38.3
	December	Q	7705	1601	20.8
		V	1967	474	24.1
	Quarter IV Total	Q	21113	4754	22.5
		V	5447	1537	28.2
	TOTAL	Q	92184	31988	34.7
		V	26203	10987	41.9

Source: M.P.E.D.A., Cochin.



## 6.6 Marine Fish Landing and Marine Products Exports—India and Kerala—A comparative Study

Year	Quantity in M.T.			Value in Rs. '000.					
	Marine fish landings		Percentage of Kerala	Exports of Marine Products					
	India	Kerala		Quantity			Value		
				India	Kerala	% of Kerala	India	Kerala	% of Kerala
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1969	913630	294787	32.3	30584	22792	74.5	330734	277226	83.8
1970	1085607	392880	36.2	37175	24077	64.8	355359	275210	77.4
1971	1161389	445347	38.3	34032	21569	63.4	391725	301598	77.0
1972	980049	295618	30.2	38271	25519	66.7	581317	422692	72.7
1973	1220240	448269	36.7	48785	30826	63.2	795763	540839	68.0
1974	1217797	420257	34.5	46629	24529	52.6	763127	433605	56.8
1975	1422693	420836	29.6	53412	32478	60.8	1049063	602963	57.5
1976	1352855	331047	24.5	62151	31155	50.1	1798620	879484	48.9
1977	1259782	345037	27.4	64964	27802	42.8	1797374	746754	41.5
1978	1403607	373339	26.6	77946	31855	40.9	2121574	850184	40.1
1979	1388380	330509	23.8	92184	31988	34.7	2620292	1098703	41.9

Source: C.M.F.R.I. &amp; M.P.E.D.A.

## 6.7 Pattern of Marine Products Export from India and Kerala (1975-76 to 1979-80)

Sl.No.	Items	Q: Quantity in tonnes. V: Value in Rs. '000.									
		1975-76		1976-77		1977-78		1978-79		1979-80	
		India	Kerala	India	Kerala	India	Kerala	India	Kerala	India	Kerala
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Frozen shrimp	Q V	46489 1105755	28968 602057	49375 1679857	28967 839448	50067 1583020	26932 704831	51162 1947849	25816 810444	51068 2112483	26047 923720
2. Frozen lobster Tails	V Q	20353 405	9302 156	33049 512	14550 230	39648 637	19653 320	51431 732	30292 394	40623 560	20169 221
3. Frozen frog legs	Q V	2039 48917	1009 27102	3020 71707	1064 26806	2899 66739	1058 25938	4087 99163	1802 44970	2926 63367	1684 36785
4. Fresh & Frozen fish	Q V	325 3886	.. ..	2753 29436	5 80	3140 31716	16 150	16757 97539	974 2409	22629 133186	123 2063
5. Frozen cuttle fish and fillets	Q V	1239 35828	.. ..	752 12581	183 2079	977 14210	620 9660	1062 19060	685 13841	1551 42861	979 28923
6. Frozen squids	Q V	52 470	.. ..	566 6793	.. ..	654 6771	352 4054	2755 36937	1651 23162	2244 29610	593 9349
7. Canned shrimp	Q V	164 3758	156 3587	124 4560	82 3121	129 5670	116 5218	197 8785	185 5490	231 11305	226 10920
8. Dried fish	Q V	2411 9827	.. ..	5372 21521	5 1	4230 22625	.. ..	6909 36603	Neg. 5	3357 15652	.. ..
9. Dried shrimp	Q V	79 993	71 785	29 209	8 107	235 1712	.. ..	19 285	.. ..	.. ..	.. ..
10. Shark fins and fish Maws	Q V	289 9859	.. ..	292 18119	5 43	289 24922	1 87	416 33242	Neg. 6	341 26835	Neg. 94
11. Miscellaneous	Q V	971 5746	1286 33310	3955 13338	1046 14964	2710 12472	404 4873	2798 15333	794 6332	1494 12318	661 7185
Total	Q V	54463 1245292	31644 678143	66750 1891170	31595 901168	65967 1809505	29819 774464	86894 2346227	32301 939951	86401 2488240	30534 1039308



## 6.8 Port-wise share (%) in India's marine products exports 1975-1979

Ports	1975		1976		1977		1978		1979	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Cochin	60.53	57.45	49.92	48.88	42.73	41.54	40.61	40.02	34.32	41.85
Bombay	10.96	11.01	20.10	14.54	24.79	16.57	18.39	12.94	12.68	12.38
Madras	7.19	12.05	7.49	12.78	7.74	12.47	7.89	13.96	6.22	11.42
Calicut	0.28	0.03	0.21	0.01	0.07	0.01	0.26	0.05	0.39	0.07
Calcutta	3.25	5.55	4.74	7.96	4.75	9.15	3.66	7.86	1.37	2.96
Mangalore	9.85	8.35	5.67	5.61	6.91	6.50	5.01	5.11	5.40	6.48
Ratnagiri	2.16	2.21	0.83	0.92	1.15	1.08	1.03	1.07	2.08	2.77
Tuticorin	3.71	0.56	5.27	0.58	3.50	0.62	5.11	0.94	3.87	0.62
Vizag	0.29	0.48	2.32	4.45	3.91	6.54	3.92	7.66	3.95	8.93
Nagapattinam	0.07	0.01	0.05	0.67	0.03	0.05	0.39	0.08	0.05	0.07
Porbandar	..	..	..	..	0.26	0.43	1.53	1.38	1.55	1.34
Kakkinada	0.01	0.01	0.03	..	0.02	0.01	0.05	0.02	0.01	Neg.
Paradeep	0.71	1.30	0.62	1.21	0.67	1.05	2.54	4.98	2.94	5.60
Goa	..	..	..	..	..	..	..	..	..	..
Okha	..	..	..	..	0.15	0.08	..	..	0.07	0.01
Veraval	0.99	0.90	2.75	2.99	3.32	3.90	2.83	3.02	2.95	2.75
Port Blair	..	..	..	..	..	..	6.78	0.91	22.15	2.75
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

## 6.9 Pattern of Marine Products Exports from India

Q: Quantity in M.T. V: Value in Rs. '000.

Sl.No.	Item		1971	1972	1973	1974	1975	1976	1977	1978	1979
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Frozen shrimp	Q V	23181 313363	30550 508843	35895 658122	34361 637326	46831 943386	47952 1606489	47239.4 1562206.1	51223.0 1790644.1	53511 2231273
2.	Frozen Lobster tails	Q V	326 10942	369 12794	380 10663	456 12573	402 15760	515 31803	595.6 38804.1	690.5 45668.2	752 53465
3.	Frozen frog legs	Q V	1451 13774	1823 21709	2698 44979	1454 28652	1317 27983	3169 77970	2834.2 65966.9	3570.1 84251.4	3764 87150
4.	Frozen fish	Q V	24 131	21 123	146 731	66 767	134 1884	730 7459	3765.1 38706.0	4643.1 44071.5	24126 115581
5.	Frozen Cuttle fish	Q V	.. ..	.. ..	13 190	141 1979	1017 29071	271 4563	483.4 7535.2	352.5 5169.8	1339 35310
6.	Canned shrimp	Q V	1864 29757	1058 21026	2199 52369	1516 47842	261 5999	75 2840	127.5 5221.4	204.1 9149.5	139 6428
7.	Dried Shrimp	Q V	684 3742	139 1380	284 3230	116 1426	99 1132	35 384	234.7 1711.4	3.8 75.3	19 222
8.	Dried fish	Q V	5941 13820	3478 7971	3388 10955	1748 6658	2295 9061	4450 16387	.. ..	.. ..	3728 18934
9.	Shark fins & fish maws	Q V	295 5189	294 6027	252 6569	259 8464	307 9822	265 15273	.. ..	.. ..	190+ 182 11825+ 17517
10.	Cuttle fish fillets	Q V	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	605.3 9779.5	626.7 11421.5	.. ..
11.	Frozen squids	Q V	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	606.6 6501.1	2427.8 32777.4	.. ..
12.	Fish Oil	Q V	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	46.3 122.1	262.3 1508.2	.. ..
13.	Others	Q V	266 1007	539 1444	3530 7955	6512 17440	749 4965	4689 35452	8426.8 60819.9	13941.8 96837.5	4434 42587
Total		Q V	34032 391725	38271 581317	48785 795763	46629 763127	53412 1049063	62151 1798620	64964.9 1797373.7	77945.7 2121574.4	92184 2620292

Source: M.P.E.D.A.

**6.10 (a) Exports through the ports of Kerala and the share of Marine Products Exports**

<i>Year</i>	<i>Aggregate Exports (Rs. in lakhs)</i>	<i>Marine Products Exports (Rs. in lakhs)</i>	<i>Share (%)</i>
(1)	(2)	(3)	(4)
1960-61	6972	191	2.7
1970-71	16101	2677	16.6
1975-76	33498	7530	22.5
1976-77	47988	7232	15.1
1977-78	48308	8291	17.2

**6.10 (b) Exports through the ports of Cochin and the share of Marine Products Exports**

<i>Year</i>	<i>Aggregate Exports (Rs. in lakhs)</i>	<i>Marine products Export (Rs. in lakhs)</i>	<i>Share (%)</i>
(1)	(2)	(3)	(4)
1960-61	5741	191	3
1970-71	15802	2677	17
1975-76	33305	7530	23
1976-77	47726	7232	15
1977-78	47488	8287	17

Source: Directorate of Economics and Statistics.

**6.11 Foreign Exports from the ports of Kerala for the year 1977-78 (July to June)**

(Value Rs. in lakhs)

<i>Sl.No.</i>	<i>Commodity</i>	<i>Unit</i>	<i>Quantity</i>	<i>Value</i>
(1)	(2)	(3)	(4)	(5)
1.	Bricks & Tiles	'000 Nos.	818	7.57
2.	Cardamom	qtls.	3453	457.40
3.	Cashew kernels	M.T.	28288	10039.30
4.	Cashew shell liquid	'000 ltrs.	2542	125.40
5.	Coffee	M.T.	13849	4442.24
6.	Coir yarn & fibre	"	24230	985.20
7.	Coir products	"	19543	1462.60
8.	Cardage & rope of vegetable fibre	"	1821	69.71
9.	Fish & prawns	"	34439	8290.82
10.	Ginger	"	6408	926.02
11.	Hider & skins	"	293	11.33
12.	Jute & Jute products	"	18	2.38
13.	Metals, minerals & Ores	"	110242	1112.30
14.	Manioc meals	"	2	1.05
15.	Lemongrass oil	'000 ltrs.	55	35.59
16.	Sandalwood oil	'00 ltrs.	42	49.47
17.	Other vegetable oil	"	68	20.27
18.	Oil cake	M.T.	Nil	..
19.	Pepper	"	21512	4338.89
20.	Rubber manufacture	Value	..	148.28
21.	Tea	M.T.	47912	10510.91
22.	Turmeric	"	2655	269.69
23.	Rosewood	Value	..	773.03
24.	Other kinds of wood	"	..	203.86
25.	Wood manufacturers	"	..	245.02
26.	Other :	"	..	3729.58
Total				48307.91

## 6.12 Foreign Exports from the Cochin Port (July to June) 1977-78

(Value Rs. in lakhs)

Sl.No.	Commodity	1977-78		
		Unit	Quantity	Value
(1)	(2)	(3)	(4)	(5)
1.	Bricks and Tiles	'000 Nos.	413	4.73
2.	Cardamom	Qtl.	3296	445.83
3.	Cashew kernels	M.T.	28288	10089.30
4.	Cashew shell liquid	'000 litres	2542	125.40
5.	Coffee	M.T.	13849	4442.24
6.	Coir yarn & fibre	"	16514	670.00
7.	Coir products	"	18288	1376.59
8.	Cardage & rope or vegetable fibre	"	1821	69.71
9.	Fish & prawns	"	34439	8287.25
10.	Ginger	"	6397	924.33
11.	Hides & skins	"	293	11.33
12.	Jute & Jute Products	"	18	2.38
13.	Metals, minerals & Ores	"	21319	933.90
14.	Manioc meal	M.T.	2	1.05
15.	Lemongrass oil	1000 litres	55	35.59
16.	Sandalwood oil	'00 "	42	49.41
17.	Other vegetable oil	"	68	20.27
18.	Oil cake	"	..	..
19.	Pepper	"	21276	4295.52
20.	Rubber manufactures	"	..	148.28
21.	Tea	"	47912	10510.91
22.	Turmeric	Value	2655	269.69
23.	Rosewood	"	..	773.03
24.	Other kinds of wood	"	..	117.26
25.	Wood manufacturers	"	..	194.64
26.	Others	"	..	3689.31
Total				47488.01

## 6.13 Share of shrimps in Marine products exports from India

Q: Quantity in tonnes.

V: Value in Rs. '000.

Year		Shrimps								Total marine products Exports
		Frozen		Canned		Dried		Total		
		Exports	Percentage to total exports	Exports	Percentage to total exports	Exports	Percentage to total exports	Exports	Percentage to total exports	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1970	Q	22135	59.5	2578	6.9	1486	4.0	26199	70.4	37175
	V	242515	68.2	39541	11.1	8361	2.4	290417	81.7	355359
1971	Q	23181	68.1	1864	5.5	684	2.0	25629	75.6	34082
	V	313363	80.0	29757	7.6	3742	0.9	346862	88.5	391725
1972	Q	30550	79.8	1058	2.8	139	0.4	31747	83.0	38271
	V	508843	87.5	21026	3.6	1380	0.2	531249	91.3	581317
1973	Q	35895	73.6	2199	4.5	284	0.6	38378	78.7	48785
	V	658122	82.7	52362	6.6	3230	0.4	713721	89.7	795763
1974	Q	34361	73.7	1516	8.3	116	0.2	35993	77.2	46629
	V	637326	83.5	47842	6.3	1426	0.2	686594	90.0	763126
1975	Q	46831	87.7	261	0.5	99	0.2	47191	88.4	53412
	V	943386	89.9	5999	0.6	1132	0.1	950517	90.6	1049063
1976	Q	47952	77.2	102	0.2	36	*	48090	77.4	62151
	V	1606499	89.3	3935	0.2	385	*	1610819	89.6	1798620
1977	Q	47239	72.72	128	0.2	235	0.36	47602	73.28	64964
	V	1562206	86.92	5221	0.29	1711	0.10	1569138	87.31	1797374
1978	Q	51223	65.07	204	0.03	4	*	51431	66.0	77946
	V	1790644	84.04	9149	0.04	75	*	1799868	84.8	2121574
1979	Q	53511	58.05	139	0.15	19	0.02	53669	58.22	92184
	V	2231273	85.15	6428	0.24	222	0.01	2237923	85.40	2620292

\*Negligible

Source: M.P.E.D.A.

**6.14 India's Aggregate exports and the share of Marine products exports  
(1975-1979)**

<i>Year</i>	<i>Aggregate Exports (Rs. Crores)</i>	<i>Marine products Exports (Rs. Crores)</i>	<i>Share(%)</i>
(1)	(2)	(3)	(4)
1975	3642.3	104.9	2.88
1976	4968	179.0	3.62
1977	5554	179.7	3.24
1978	N.A.	212.2	..
1979	N.A.	262.0	..

Source: M.P.E.D.A.

**6.15 Major Importers of Indian Marine products and their share in our Exports**

(Q: Quantity, V: Value, Quantity and Value in percentage)

<i>Sl. No.</i>	<i>Major Importers</i>	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Japan	Q	18.0	34.3	34.0	47.8	42.1	58.6	44.9	42.1	41.4
		V	29.9	52.7	48.0	58.7	51.6	68.1	64.6	61.0	68.2
2.	U.S.A.	Q	47.8	34.1	44.1	27.7	31.4	27.5	33.7	31.6	15.9
		V	47.3	29.6	39.1	25.2	32.1	21.7	25.8	25.8	15.3
3.	France	Q	1.5	2.0	2.8	2.0	0.7	1.8	5.1	4.4	3.9
		V	2.0	2.0	2.9	2.1	1.0	1.9	4.1	3.9	3.2
4.	Netherlands	Q	0.4	0.2	0.7	0.4	0.3	0.2	0.1	0.9	2.5
		V	0.5	0.2	0.8	0.4	0.6	0.2	0.1	0.8	2.6
5.	U.K.	Q	2.5	2.0	1.9	3.4	1.9	0.4	0.4	0.5	0.5
		V	4.0	2.7	2.4	4.2	3.6	0.3	0.4	1.7	2.2
6.	Australia	Q	2.0	2.3	2.1	2.0	2.1	2.3	1.3	0.9	0.5
		V	3.1	2.7	2.2	2.3	2.4	2.6	1.2	1.2	0.9
7.	Belgium	Q	0.6	0.4	0.2	1.6	2.0	1.0	0.7	1.1	0.6
		V	0.8	0.5	0.2	1.6	2.0	0.8	0.6	1.1	0.7
8.	Srilanka	Q	19.2	16.9	8.2	7.4	4.5	3.7	6.7	6.2	3.7
		V	5.0	3.3	1.1	1.2	0.8	0.5	0.8	1.2	0.6
9.	Others	Q	8.0	7.8	5.0	7.7	16.0	4.5	7.1	12.3	29.8
		V	7.4	6.3	3.3	4.3	2.9	3.9	2.4	4.4	6.3
	Total	Q	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Exports	V	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: M.P.E.D.A., Cochin.

## 6.16 Major Markets for different items of Marine Products

Sl.No.	Items	Markets
(1)	(2)	(3)
I.	Frozen Shrimp	
(1)	Headless shell on	Mostly to Japan, Some quantities to U.S.A.
(2)	Peeled and deveined	Mostly to U.S.A. some quantities to Western Europe.
(3)	Cooked and peeled	Mostly to Australia, some quantities to Western Europe.
(4)	Peeled and undeveined	Mostly to Japan.
(5)	Peeled and deveined and cooked	Mostly to U.S.A.
(6)	Butterfly shrimp	Mostly to U.S.A.
II.	Frozen Lobster Tails	Mostly to U.S.A. small quantities to Japan, Western Europe.
III.	Frozen Froglegs	
(1)	Bigger sizes in the grades of 1 to 2 pairs per lb. 2 to 4 pairs per lb. 4 to 6 pairs per lb. 6 to 8 pairs per lb.	U. S. A.
(2)	Smaller size in the grades of 21/25 to 61/80 per Kilo	France, Belgium, Netherlands, etc.
IV.	Frozen Cuttle fish	Mosly to Japan, some quantities to Western Europe and Australia.
V.	Frozen fish	Japan, Nepal.
VI.	Canned shrimp	U.S.A. , U.K., France, Belgium, West Germany, Australia, Canada.
VII.	Canned Crab Meat	France, U.K., Sweden, Netherlands.
VIII.	Dried Fish	Srilanka, Mawritius,
IX.	Dried prawn	Hong Kong, Singapore.
X.	Shark fins	Singapore, Hong Kong.
XI.	Fish Maws	Hong Kong, U.K.
XII.	Beche-De-Mer	Singapore.
XIII.	Fish Oil	Dubai, Kuwait, Iraq, Italy.
XIV.	Fish Meal	Iran, Italy, Japan, Srilanka. Kuwait.
XV.	Sea Shells	Spain, U.S.A., Japan and West Germany.
XVI.	Sea Weeds	Japan.

Source: M.P.E.D.A.

## 6.17 Different forms of shrimps processed for exports

Sl.No.	Forms of shrimp processed
1.	"Headless shellon" shrimp
2.	"Peeled and deveined" shrimp
3.	"Peeled Deveined & Cooked" Shrimps
4.	"Cooked and peeled" shrimps.
5.	"Peeled & Undeveined" (or Peeled round) shrimp.
6.	"Butterfly" shrimp

Source: M.P.E.D.A.



## 6.18 Field rate from Raw shrimps to the finished product (processed form before freezing)

<i>S.L.No.</i>	<i>Variety of raw shrimp with size</i>	<i>Processed from</i>	<i>Yield rate (%)</i>
(1)	(2)	(3)	(4)
1.	Naran big size	Headless shell	60-62
2.	„ small size	„	56-58
3.	„ Kazhandan	„	56-60
4.	„ Kara (King & Tiger prawn)	„	65-67
5.	„ Poovalan	„	50-55
6.	„ Karikadi	„	45-50
7.	„ Naran big size	Peeled & Deveined	50-55
	„ Small size	„	48-52
	„ Kazhandan	„	40-44
	„ Poovalan	„	38-42
	„ Karikadi	„	30-33
	All varieties of shrimps of small size below 90 counts per lb.	Peeled and Deveined and cooked	20-22
	Poovalan and Karikadi alone are used	Cooked and peeled	28-30
	All the small size shrimps below 130 counts per lb.	Peeled & Undeveined (or peeled round)	40-45

Source: C.I.F.T.

## 6.19 Grades in different varieties of frozen shrimps exported

<i>Head less shell on</i>	<i>Peeled and deveined</i>	<i>Peeled and undeveined (Peeled round)</i>	<i>Peeled deveined and cooked</i>	<i>Cooked and peeled</i>
(1)	(2)	(3)	(4)	(5)
Under 10				
U/10	U/10	..	..	..
11/15 } U/15 }	11/15 or } U/15 }	..	..	..
16/20	16/20	..	..	..
21/25	21/25	..	..	..
26/30	26/30	..	..	..
31/35 } 36/40 } 31/40	31/35 } 36/40 } 31/40	..	..	..
41/50	41/50	..	..	..
51/60	51/60	..	..	..
61/70	61/70	..	..	..
71/90	71/90	60/80	..	..
91/110	91/110	80/120	..	..
..	..	100/200	150/200	..
..	111/130	..	200/300	130/300
..	131/200	..	..	150/300
..	200/300	200/300	..	..
..	300/500	300/500	..	300/500
..	Broken	Broken	..	500 & up broken

Source: M.P.E.D.A.

## 6.20 Top Ten Fish Importing Countries of the World (1974-78)

Q: Quantity in '000 M. Tonnes  
V: Value in Million US

Countries		1974	1975	1976	1977	1978
(1)		(2)	(3)	(4)	(5)	(6)
Japan	Q V	587.5 1050.3	642.8 1218.1	722.3 1783.9	941.7 2295.5	923.0 3041.6
U.S.A.	Q V	1042.9 1518.6	943.3 1381.3	1106.5 1890.9	1027.9 2085.8	1073.1 2225.9
France	Q V	359.6 405.0	397.5 489.0	397.5 540.9	450.7 674.9	468.5 844.4
Fc. Rep. of Germany	Q V	825.9 513.8	848.3 490.3	798.7 535.6	791.0 666.4	759.3 766.3
U. K.	Q V	548.3 446.7	621.6 434.3	675.7 512.7	606.1 556.2	668.0 692.8
Italy	Q V	272.5 306.2	317.9 310.7	354.1 387.8	321.7 426.3	362.0 542.3
Netherlands	Q V	246.0 161.7	284.2 172.5	309.7 202.4	287.5 257.7	329.0 327.1
Belgium	Q V	160.5 175.2	162.9 177.8	163.9 216.3	164.2 256.5	158.3 301.2
Hong Kong	Q V	78.9 128.7	83.4 135.8	86.6 182.4	84.4 215.0	89.4 254.9
Sweden	Q V	152.1 174.9	161.8 168.6	162.0 195.6	158.4 218.8	169.8 245.7
Total World Import	Q V	7287.9 6864.0	7647.5 6955.9	7930.5 8670.1	7887.6 10042.8	8368.3 12033.0

Source: Year Book of Fishery Statistics F.A.O. 1978.

Note: The Countries are ranked on the basis of their import value.

## 6.21 Top Ten Fish Exporting Countries of the World (1974-78)

Q: Quantity in '000 M. Tonnes  
V: Value in Million US

Countries		1974	1975	1976	1977	1978
(1)		(2)	(3)	(4)	(5)	(6)
Canada	Q V	299.4 433.4	301.6 441.9	349.6 598.8	442.0 756.6	479.4 981.2
U. S. A.	Q V	221.8 252.6	196.3 298.0	220.0 371.9	226.0 508.1	350.7 897.3
Norway	Q V	577.6 517.2	770.1 515.4	864.8 654.6	899.2 840.7	660.3 756.3
Japan	Q V	706.2 609.1	593.4 490.0	642.4 649.4	582.9 631.4	745.0 748.8
Denmark	Q V	572.9 439.8	611.2 426.8	671.1 586.3	611.3 627.2	600.1 727.9
Korea	Q V	146.7 169.0	395.7 361.1	284.8 321.5	513.9 696.7	469.7 639.4
Ice-Land	Q V	300.3 248.3	365.9 243.5	325.2 316.8	396.0 381.1	478.8 497.7
Netherland	Q V	217.1 215.8	235.0 258.0	227.5 279.8	232.9 314.9	274.3 399.6
U. K.	Q V	186.7 138.3	156.3 134.2	165.6 153.4	185.6 197.1	372.3 284.7
Spain	Q V	195.7 208.6	178.4 181.9	232.1 245.0	190.1 236.4	200.1 281.0
Total World Export	Q V	7082.9 6017.3	7676.9 6360.8	7960.9 7924.9	8222.2 9470.7	8988.4 11170.0

Source: F.A.O. Year Book of Fishery Statistics-1978.

6.22 Monthly Average wholesale prices for Indian Shrimps in the U.S. Market (Peeled &amp; Deveined)—1978

Grade	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Un/15	..	..	..	..	..	..	..	465	468	483	498	500
16/20	433	430	430	434	435	430	429	431	435	450	478	449
21/25	415	415	417	414	422	420	425	426	426	442	459	434
26/30	391	388	389	387	388	388	394	395	397	405	413	401
31/35	352	348	353	349	348	348	356	357	359	362	373	361
36/40	330	228	329	329	328	238	336	336	339	345	357	343
41/50	283	279	282	278	278	273	282	278	290	295	307	296
51/60	242	245	240	233	233	232	233	233	245	248	257	248
61/70	217	219	216	217	220	218	226	228	228	235	248	229
71/90	200	206	204	207	207	209	218	222	215	225	238	217
91/110	189	194	190	183	195	197	201	205	194	206	219	200
111/130	182	182	181	184	186	185	191	196	189	201	173	194
120/200	154	154	151	149	147	143	149	154	154	160	170	161
200/300	144	142	139	135	136	120	135	132	138	142	153	149

6.23 Monthly Average wholesale prices for Indian Shrimps in the U.S. Market (Peeled &amp; Deveined)—1979

Grade	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Un/15	512	540	547	560	588	590	573	575	..	..	..	..
16/20	500	525	529	548	565	568	563	565	..	..	..	..
21/25	477	495	504	518	535	538	533	535	..	..	..	..
26/30	435	455	468	488	496	497	502	495	..	..	..	..
31/35	390	417	435	453	479	479	482	479	480	..	..	..
36/40	375	402	418	438	449	451	452	449	450	..	..	..
41/50	315	350	377	400	422	425	420	425	438	..	..	..
51/60	275	327	365	383	406	404	413	421	428	..	..	..
61/70	265	313	342	360	386	387	393	397	405	..	..	..
71/90	249	290	327	343	373	366	375	383	395	..	..	..
91/110	222	278	320	338	355	351	359	373	378	..	..	..
111/130	215	233	263	283	311	314	333	343	348	..	..	..
130/200	169	210	228	243	254	258	260	255	260	270	275	..
200/300	153	188	203	220	235	242	238	230	235	250	250	..

## 6.24 Monthly Average wholesale prices for Indian Frozen Lobster Tails in U.S. Market—1978

Month	Spiny						Slipper		
	1-2 Oz.	2-4 Oz.	4-6 Oz.	6-8 Oz.	8-10 Oz.	10-12 Oz.	1-2 Oz.	2-4 Oz.	4-6 Oz.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
January	336	433	534	536	491	463	286	350	..
February	338	438	538	520	495	464	320	384	..
March	358	453	533	567	503	475	..	380	..
April	366	465	556	559	519	488	344	391	425
May	382	483	594	598	540	507	353	415	433
June	..	..	637	630	576	525	388	422	425
July	420	505	658	663	631	558	395	425	450
August	..	..	670	673	625	560	383	426	..
September	325	423	620	618	585	530	383	422	..
October	213	514	648	648	609	566	353	404	450
November	..	..	693	695	660	593	394	426	..
December	336	430	705	606	568	529	313	369	..

## 6.25 Monthly Average wholesale prices for Indian Frozen Lobster Tails in U.S. Market—1979

Month	Spiny						Slipper		
	1-2 Oz.	2-4 Oz.	4-6 Oz.	6-8 Oz.	8-10 Oz.	10-12 Oz.	1-2 Oz.	2-4 Oz.	4-6 Oz.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
January	473	618	705	705	650	613	378	427	452
February	485	635	715	715	665	620	380	430	455
March	555	658	714	709	674	615	380	476	450
April	560	673	728	725	690	655	375	422	..
May	556	675	728	722	693	657	369	430	520
June	554	671	720	716	691	662	368	422	..
July	520	651	709	701	669	654	353	418	..
August	497	672	711	706	660	647	339	422	..
September	500	674	712	700	680	659	328	413	..
October	502	670	715	698	670	662	321	410	..
November	492	656	701	701	658	642	324	423	..
December	490	657	746	700	650	640	322	387	..



**6.26 Monthly Average wholesale prices for Indian Frozen Froglegs in the U.S. Market—1978**

<i>Months</i>	<i>Grade</i>			
	<i>Junbo</i>	<i>Large</i>	<i>Medium</i>	<i>Small</i>
(1)	(2)	(3)	(4)	(5)
January	180	190	213	236
February	182	193	225	260
March	190	203	235	284
April	220	224	271	296
May	226	236	278	307
June	236	251	286	319
July	245	263	283	325
August	260	277	318	331
September	207	221	250	271
October	255	288	328	340
November	250	284	294	292
December	213	232	239	241

**6.27 Monthly Average wholesale prices for Indian Froglegs in the U.S. Market—1979**

<i>Months</i>	<i>Grade</i>			
	<i>Junbo</i>	<i>Large</i>	<i>Medium</i>	<i>Small</i>
(1)	(2)	(3)	(4)	(5)
January	260	265	262	250
February	244	243	238	235
March	229	229	227	218
April	220	220	218	212
May	219	219	218	213
June	215	215	215	213
July	209	204	196	186
August	180	180	180	177
September	173	173	174	172
October	177	177	190	191
November	183	183	209	208
December	178	178	215	218



## 6.28 C.W.E. Prices for Indian Dried Fish

CIF Prices per Cwt. in Indian Rs.

Sl.No.	Items	1-1-1979 to 15-3-1979	16-3-1979 to 31-7-1979	1-8-1979 to 31-12-1979
(1)	(2)	(3)	(4)	(5)
1.	Seer without head	300.00	325.00	325.00
2.	Angila without head	225.00	250.00	250.00
3.	Balaya without head	250.00	260.00	260.00
4.	Katta without head	250.00	275.00	275.00
5.	Spratts Tulicorin Grade	275.00	285.00	285.00
6.	Parawa small	100.00	100.00	100.00
7.	Shark	100.00	150.00	150.00
8.	Magachari (strips without skin and bone)	185.00	185.00	185.00
9.	Angula small (Dubar)	150.00	150.00	150.00
10.	Malabar Angulwa without head	185.00	200.00	200.00
11.	Soodaya (50 tonnes per month)	50.00	50.00	50.00
12.	Vannathi without head	81.87	81.87	81.87
13.	Lavaya without head	185.00	185.00	185.00
14.	Thondaya (Dried unsalted Grade I)	185.00	185.00	200.00
15.	Cheva Keelam without head	140.00	200.00	200.00
16.	Anguluwar (Tuticorin other than Malabar without head)	185.00	..	200.00
17.	Wekka without head	75.62	75.62	75.62
18.	Jeela without head	150.00	175.00	175.00
19.	Parava without head	225.00	225.00	250.00
20.	Koduwa without head	150.00	150.00	150.00
21.	Thalapath	150.00	150.00	150.00
22.	Maduwa	75.00	75.00	75.00
23.	Kooney	150.00	150.00	..
24.	Moothila without head	200.00	200.00	200.00
25.	Sparts without head (Valainetholi)	150.00	150.00	180.00
26.	Hurulla (50 tonnes per month)	100.00	100.00	100.00
27.	Kumbalawa (50 tonnes per month)	150.00	150.00	175.00

## 6.29 Average Unit Value Realisation of Frozen Shrimps—1975-79

V: Value in Rs./Kgs. (f.o.b.)

Countries	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)
Australia	21.83	31.06	39.79	34.83	51.71
Belgium	14.86	38.91	34.54	32.00	55.97
Canada	..	47.23	35.36	20.68	..
Denmark	17.33	18.10	18.33	24.03	..
France	16.27	22.76	23.64	25.39	28.11
Japan	22.76	42.66	41.15	42.35	47.21
Netherlands	17.52	28.51	30.44	28.26	39.95
U.K.	19.07	28.72	26.91	34.65	37.97
U.S.A.	14.71	21.33	22.34	20.93	27.28
Fed. Republic of Germany	17.26	..	50.26	76.90	48.01
Sweden	13.77	19.91	..	..	..
Total	20.14	33.50	33.07	34.96	41.70

## 6.30 Average Unit Value Realisation of Dried Prawns—1975-79

Value in Rs./Kgs. (f.o.b)

Countries	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)
Australia ..	16.52	22.89	..	..	2.99
Hong Kong ..	9.68	6.30	7.40	..	..
Jamaica ..	..	..	..	..	..
Japan ..	6.57	9.25	9.51	..	16.79
Malaysia ..	11.30	..	..	..	..
Mauritius ..	20.22	22.78	..	..	..
Netherlands ..	14.23	18.03	28.76	40.23	..
Singapore ..	7.86	..	..	..	..
Srilanka ..	..	..	8.16	..	..
U.S.A. ..	17.56	..	5.84	..	5.00
U.K. ..	15.59	20.16	..	..	..
Total	11.49	10.82	7.29	19.96	11.63

## 6.31 Average Unit Value Realisation of Canned Shrimps (1975-79)

Value in Rs./Kgs. (f.o.b.)

Countries	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)
Australia ..	25.08	29.85	36.54	..	..
Belgium ..	..	30.29	..	50.01	..
Canada ..	..	..	..	..	..
Denmark ..	23.91	35.80	32.38	32.50	..
G.D.R. ..	30.99	31.09	50.53	51.59	48.83
France ..	23.35	34.68	40.43	9.77	41.32
Netherlands ..	21.40	34.33	..	..	..
Newzealand ..	23.22	31.74	..	..	35.16
Switzerland ..	19.34	45.43	..	..	..
U.S.A. ..	21.35	31.14	..	..	..
U.K. ..	17.68	45.64	37.55	44.89	45.85
Fed. Republic of Germany ..	21.75	..	38.08	..	..
Total	22.98	38.43	40.95	44.83	46.26

## 6.32 Average Unit Value Realisation of Lobster Tails (1975-79)

Value in Rs./Kgs. (f.o.b.)

Countries	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)
U.S.A. ..	40.55	61.86	61.90	60.25	65.61
Japan ..	16.24	54.28	61.38	80.43	75.16
Total	39.16	62.04	65.16	66.14	71.11

## 6.33 Average Unit Value realisation of Frozen Froglegs(1975-79)

Value in Rs./Kgs. (f.o.b.)

<i>Countries</i>	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)
Belgium ..	19.27	27.09	27.62	26.25	29.56
France ..	25.81	27.66	30.14	27.22	23.95
Japan ..	22.83	..	32.46	24.96	36.12
Netherlands ..	21.26	27.27	21.69	19.40	21.97
U.S.A. ..	18.34	21.42	14.81	20.96	22.71
Fed. Republic of Germany ..	18.51	29.10	12.83	26.02	24.89
Total ..	21.24	24.60	23.28	23.60	23.15

## 6.34 Average Unit Value Realisation of Dried Fish (1975-79)

Value in Rs./Kgs. (f.o.b.)

<i>Countries</i>	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)
Mouritius ..	5.67	5.57	5.63	10.26	7.73
Singapore ..	23.19	17.71	32.88	21.49	63.84
Sri Lanka ..	2.93	3.40	5.07	4.76	4.45
U.K. ..	15.27	3.27	16.26	18.48	20.89
Total ..	3.95	3.71	5.36	5.09	5.08

## 6.35 R.B.I. Foreign Exchange rates as on 1-12-1980

	<i>Buying currency equivalent for Rs.100</i>	<i>Rupee equivalent per unit currency</i>	<i>Selling currency equivalent for Rs. 100</i>	<i>Rupee equivalent per unit currency</i>
(1)	(2)	(3)	(4)	(5)
Hongkong Dollar	65.3025	1.53	64.8450	1.54
Malaysian Dollar	27.9725	3.57	27.7525	3.60
Australian Dollar	10.9700	9.11	10.8950	9.17
Newzealand Dollar	13.3225	7.50	13.2225	7.56
Singapore Dollar	26.7450	3.73	26.5450	3.76
S. African Ramp	9.5900	10.42	10.3725	9.64
U.S. Dollar	12.7700	7.83	12.7150	7.86
Canadian Dollar	15.2325	6.56	15.1275	6.61
West German Marks	24.7300	4.04	24.5025	4.08
Swiss Francs	22.2850	4.48	22.1225	4.52
Belgian Francs	396.4800	0.2522	393.7425	0.2539
French Francs	57.2350	1.74	56.8500	1.75
Danish Kroner	75.6700	1.32	75.1650	1.33
Norwegian Kroner	64.5700	1.54	64.1400	1.55
Swedish Kroner	55.3975	1.80	55.0200	1.81
Italian Lire	11709.85	0.0085	11627.14	0.0086
Japanese Yen	2755	0.03	2752	0.03

## 7. FISHERMEN CO-OPERATIVES

## 7.1 Details of different types of Fishermen Co-operative Societies working in the State as on 31st March 1978

Sl.No.	District	MUCS (Production)	Marketing Societies	Credit Societies	Federation	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Trivandrum	126	2	..	..	128
2.	Quilon	93	1	3	..	97
3.	Alleppey	49	2	20	..	71
4.	Kottayam	6	..	5	..	11
5.	Ernakulam	23	2	15	1	41
6.	Trichur	51	2	30	..	83
7.	Malappuram	100	2	8	..	110
8.	Calicut	39	2	9	..	50
9.	Cannanore	42	3	12	..	57
Total		529	16	102	1	648

## 7.2 Details of different types of Fishermen Co-operative Societies working in the State as on 31st March 1979

Sl.No.	District	M.U.C.S. (Production)	Marketing Societies	Credit Societies	Federation	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Trivandrum	121	2	..	..	123
2.	Quilon	89	1	3	..	93
3.	Alleppey	48	2	20	..	70
4.	Kottayam	6	..	5	..	11
5.	Ernakulam	23	2	15	1	41
6.	Trichur	44	2	28	..	74
7.	Malappuram	90	2	6	..	98
8.	Calicut	35	2	7	..	44
9.	Cannanore	36	3	12	..	51
Total		492	16	96	1	605

## 7.3 Details of different types of Fishermen Co-operative Societies, Working in the State as on 31-3-1980

Sl.No.	District	M.U.C.S. (Production)	Marketing Societies	Credit Societies	Federation	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Trivandrum	109	1	..	..	110
2.	Quilon	84	1	2	..	87
3.	Alleppey	47	2	20	..	69
4.	Kottayam	7	..	5	..	12
5.	Ernakulam	20	1	14	1	36
6.	Trichur	38	2	28	..	68
7.	Malappuram	86	2	6	..	94
8.	Calicut	33	3	7	..	43
9.	Cannanore	27	3	9	..	39
Total		451	15	91	1	558

## 7.4 District-wise details of Fishermen Co-operative Societies as on 31-3-1978

Sl.No.	District	No. of Co-operative Societies at the beginning of the year					Registered during 1977-78				
		Credit	Production	Market- ing	Federation	Total	Credit	Production	Market- ing	Federation	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Trivandrum	..	134	2	..	136	..	..	..	..	..
2.	Quilon	3	94	1	..	98	..	1	..	..	1
3.	Alleppey	22	51	2	..	75	..	..	..	..	..
4.	Kottayam	8	8	..	..	16	..	..	..	..	..
5.	Ernakulam	15	32	2	1	50	..	..	..	..	..
6.	Trichur	31	60	2	..	93	..	..	..	..	..
7.	Malappuram	8	106	2	..	116	..	..	..	..	..
8.	Kozhikode	9	43	2	..	54	..	1	..	..	1
9.	Cannanore	36	90	4	..	130	..	..	..	..	..
	Total	132	618	17	1	768	..	2	..	..	2

Table 7.4 (Contd.)

Sl.No.	District	No. of Co-operative Societies wound up during 1977-78					No. of Co-operative Societies at the end of the year				
		Credit	Production	Market- ing	Federation	Total	Credit	Production	Market- ing	Federation	Total
(1)	(2)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	Trivandrum	..	8	..	..	8	..	126	2	..	128
2.	Quilon	..	2	..	..	2	3	93	1	..	97
3.	Alleppey	2	2	..	..	4	20	49	2	..	71
4.	Kottayam	3	2	..	..	5	5	6	..	..	11
5.	Ernakulam	..	9	..	..	9	15	23	2	1	41
6.	Trichur	1	9	..	..	10	30	51	2	..	83
7.	Malappuram	..	6	..	..	6	8	100	2	..	110
8.	Calicut	..	5	..	..	5	9	39	2	..	50
9.	Cannanore	24	48	1	..	73	12	42	3	..	57
	Total	30	91	1	..	122	102	529	16	1	648



## 7.5 District-wise Details of Fishermen Co-operative Societies as on 31-3-1979

Sl. No.	District	No. of Co-operative Societies at the beginning of the year					Registered during 1978-79					No. of Co-operative Societies wound up during 1978-79					No. of Co-operative Societies at the end of the year				
		Credit	Produce	Marketing	Federation	Total	Credit	Produce	Marketing	Federation	Total	Credit	Produce	Marketing	Federation	Total	Credit	Produce	Marketing	Federation	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	Trivandrum	..	126	2	..	128	..	..	..	..	..	..	5	..	..	5	..	121	2	..	123
2.	Quilon	3	93	1	..	97	..	..	..	..	..	..	4	..	..	4	3	89	1	..	93
3.	Alleppey	20	49	2	..	71	..	..	..	..	..	..	1	..	..	1	20	48	2	..	70
4.	Kottayam	5	6	..	..	11	..	1	..	..	1	..	1	..	..	1	5	6	..	..	11
5.	Ernakulam	15	23	2	1	41	..	..	..	..	..	..	..	..	..	..	15	23	2	1	41
6.	Trichur	30	51	2	..	83	..	..	..	..	..	2	7	..	..	9	28	44	2	..	74
7.	Malappuram	8	100	2	..	110	..	..	..	..	..	2	10	..	..	12	6	90	2	..	98
8.	Calicut	9	39	2	..	50	..	..	..	..	..	2	4	..	..	6	7	35	2	..	44
9.	Cannanore	12	42	3	..	57	..	..	..	..	..	..	6	..	..	6	12	36	3	..	51
Total		102	529	16	1	648	..	1	..	..	1	6	38	..	..	44	96	492	16	1	605

## 7.6 District-wise details of Fishermen Co-operative Societies as on 31-3-1980

Sl. No.	District	Number of Co-operative Societies at the beginning of the year					Registered during 1979-80				
		Credit	Production	Marketing	Federation	Total	Credit	Production	Marketing	Federation	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Trivandrum	..	121	2	..	123	..	..	..	..	..
2.	Quilon	3	89	1	..	93	..	..	..	..	..
3.	Alleppey	20	48	2	..	70	..	..	..	..	..
4.	Kottayam	5	6	..	..	11	..	1	..	..	1
5.	Ernakulam	15	23	2	1	41	..	..	..	..	..
6.	Trichur	28	44	2	..	74	..	..	..	..	..
7.	Malappuram	6	90	2	..	98	..	..	..	..	..
8.	Kozhikode	7	35	2	..	44	..	..	1	..	1
9.	Cannanore	12	36	3	..	51	..	..	..	..	..
	Total	96	492	16	1	605	..	1	1	..	2

Sl. No.	District	No. of co-operative societies wound up during 1979-80					Number of societies at the end of the year				
		Credit	Production	Marketing	Federation	Total	Credit	Production	Marketing	Federation	Total
(1)	(2)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	Trivandrum	..	12	1	..	13	..	109	1	..	110
2.	Quilon	1	5	..	..	6	2	84	1	..	87
3.	Alleppey	..	1	..	..	1	20	47	2	..	69
4.	Kottayam	..	..	..	..	..	5	7	..	..	12
5.	Ernakulam	1	3	1	..	5	14	20	1	1	36
6.	Trichur	..	6	..	..	6	28	38	2	..	68
7.	Malappuram	..	4	..	..	4	6	86	2	..	94
8.	Kozhikode	..	2	..	..	2	7	33	3	..	43
9.	Cannanore	3	9	..	..	12	9	27	3	..	39
	Total	5	42	2	..	49	91	451	15	..	558

## 7.7 Details of loan given to Fishermen Co-operative Societies during 1977-78

Sl. No.	District	Long term loan		Share capital loan		Total		Remarks
		Societies benefited	Amount Rs.	Societies benefited	Amount Rs.	Societies benefited	Amount Rs.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Trivandrum	..	..	..	..	..	..	..
2.	Quilon	..	..	..	..	..	..	..
3.	Alleppey	..	..	..	..	..	..	..
4.	Kottayam	..	..	..	..	..	..	..
5.	Ernakulam	3	3,38,000	2	4,50,000	5	12,88,000	..
6.	Trichur	1	50,000	..	..	1	50,000	..
7.	Malappuram	1	3,31,250*	1	1,00,000	2	4,31,250	..
8.	Kozhikode	1	1,43,550	1	3,65,250	2	5,08,800	..
9.	Cannanore	..	..	..	..	..	..	..
	Total	6	13,62,800	4	9,15,250	10	22,78,050	..

\* Besides an amount of Rs. 41,12,500 has also been paid to Regional Fish Marketing Society, Parappanangadi as A.R.C. Scheme.

## 7.8 Details of loan given to Fishermen Co-operative Societies During 1978-79

District	Long term loan		Share capital loan		Total		Remarks
	Amount Rs.	Societies benefited	Amount Rs.	Societies benefited	Amount Rs.	Societies benefited	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	..	..	..	..	..	..	..
Quilon	1,00,000	1	..	..	1,00,000	1	..
Alleppey	..	..	..	..	..	..	..
Kottayam	..	..	..	..	..	..	..
Ernakulam	..	..	..	..	..	..	..
Trichur	..	..	..	..	..	..	..
Malappuram	..	..	..	..	..	..	..
Calicut	31,25,000	1	..	..	31,25,000	1	..
Cannanore	..	..	..	..	..	..	..
Total	32,25,000	2	..	..	32,25,000	2	

## 7.9 Details of loan given to Fishermen Co-operative Societies during 1979-80

Sl. No.	District	Long term loan		Share capital loan		Total		Remarks
		Societies benefited	Amount Rs.	Societies benefited	Amount Rs.	Societies benefited	Amount Rs.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Trivandrum	..	..	..	..	..	..	..
2.	Quilon	..	..	..	..	..	..	..
3.	Alleppey	..	..	..	..	..	..	..
4.	Kottayam	..	..	..	..	..	..	..
5.	Ernakulam	1	13,00,000	..	..	1	13,00,000	..
6.	Trichur	..	..	..	..	..	..	..
7.	Malappuram	1	4,25,500	..	..	1	4,25,500	..
8.	Kozhikode	..	..	..	..	..	..	..
9.	Cannanore	..	..	..	..	..	..	..
	Total	2	17,25,500	..	..	2	17,25,500	..

## 7.10 Details of Grant given to Fishermen Co-operative Societies during 1977-78

Sl. No.	District	1st year grant		2nd year grant		3rd year grant		Total	
		No. of societies assisted	Amount Rs.	No. of societies assisted	Amount Rs.	No. of societies assisted	Amount Rs.	No. of societies assisted	Amount Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Trivandrum	1	1,500	..	..	2	1,000	3	2,500
2.	Quilon	1	1,500	3	3,000	..	..	4	4,500
3.	Alleppey	..	..	..	..	..	..	..	..
4.	Kottayam	..	..	..	..	..	..	..	..
5.	Ernakulam	1	15,000	..	..	..	..	1	15,000
6.	Trichur	..	..	1	1,000	..	..	1	1,000
7.	Malappuram	..	..	1	1,000	2	1,000	3	2,000
8.	Calicut	1	1,500	..	..	..	..	1	1,500
9.	Cannanore	..	..	..	..	2	3,000	2	3,000
	Total	4	19,500	5	5,000	6	5,000	15	29,500

## 7.11 Details of grant given to Fishermen Co-operative Societies during 1978-79

Sl. No.	District	1st year grant		2nd year grant		3rd year grant		Total	
		Amount	No. of societies assisted	Amount	No. of societies assisted	Amount	No. of societies assisted	Amount	No. of societies assisted
		Rs.		Rs.		Rs.		Rs.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Trivandrum	1,500	1	1,000	1	..	..	2,500	2
2.	Quilon	..	..	1,000	1	2,000	4	3,000	5
3.	Alleppey	..	..	..	..	..	..	..	..
4.	Kottayam	..	..	..	..	..	..	..	..
5.	Ernakulam	..	..	10,000	1	..	..	10,000	1
6.	Trichur	..	..	..	..	..	..	..	..
7.	Malappuram	..	..	..	..	..	..	..	..
8.	Calicut	..	..	1,000	1	..	..	1,000	1
9.	Cannanore	..	..	..	..	..	..	..	..
Total		1,500	1	13,000	4	2,000	4	16,500	9

## 7.12 Details of grant given to Fishermen Co-operative Societies during 1979-80

Sl. No.	District	1st year grant		2nd year grant		3rd year grant		Total	
		No. of societies assisted	Amount	No. of societies assisted	Amount	No. of societies assisted	Amount	No. of societies assisted	Amount
			Rs.		Rs.		Rs.		Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Trivandrum	..	..	..	..	..	..	..	..
2.	Quilon	..	..	..	..	..	..	..	..
3.	Alleppey	..	..	..	..	..	..	..	..
4.	Kottayam	..	..	..	..	..	..	..	..
5.	Ernakulam	..	..	..	..	1	5,000	1	5,000
6.	Trichur	..	..	..	..	..	..	..	..
7.	Malappuram	1	25,500	..	..	..	..	1	25,500
8.	Kozhikode	..	..	..	..	..	..	..	..
9.	Cannanore	..	..	..	..	..	..	..	..
Total		1	25,500	..	..	1	5,000	2	30,500

## 7.13 Membership and share capital of Fishermen Co-operative Societies as on 31-3-1978

Sl. No.	Type of Society	No. of societies	No. of members	Paid up share capital Rs.	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
1.	Credit	102	21,162	4,42,360.57	
2.	Production (MUCS)	529	45,244	8,32,469.00	
3.	Marketing (Regional)	16	1,639	32,73,255.00	
4.	Marketing Federation	1	11	1,28,000.00	
Total		648	68,056	46,76,084.57	

## 7.14 Membership and share capital of Fishermen Co-operative societies as on 31-3-1979

Type of society	No. of societies	No. of members	Paid up share capital Rs.	Remarks
(1)	(2)	(3)	(4)	(5)
Credit	96	19,876	8,87,781	
Production (M.U.C.S.)	492	43,434	17,38,995	
Marketing (Regional)	16	1947	36,77,775	
Marketing Federation	1	10	1,27,000	
Total	605	65,267	64,31,551	

## 7.15 Membership and share capital of Fishermen Co-operative societies as on 31-3-1980

Sl. No.	Type of society	No. of society	No. of members	Paid up share capital	Remarks
1.	Credit	91	17981	376019	
2.	Production (MUCS)	451	39821	1675914	
3.	Marketing (Regional)	15	2822	4810550	
4.	Marketing federation	1	10	127000	
	Total	558	60634	6989483	

## 7.16 Operation of credit societies for Fishermen for 1977-78

Zone	No. of societies		Amount outstanding on 1-4-1977	Amount issued during 1977-78	Amount realised during 1977-78	Amount outstanding as on 31-3-1978	Arrears
	On the rolls	Engaged in dispensing credit	Rs.	Rs.	Rs.	Rs.	Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Quilon	23	16	1,90,079	1,70,560	1,37,612	2,23,027	42,403
Ernakulam	21	6	73,092	32,458	27,182	78,368	..
Kozhikode	47	17	4,46,263	8,550	9,600	4,45,213	4,36,663
Cannanore	11	5	2,94,044.66	51,450	53,620.54	2,91,874.12	45,716
Total	102	44	10,03,478.66	2,63,018	2,28,014.54	10,38,482.12	5,24,782

## 7.17 Operation of Credit Societies for Fishermen for 1978-79

Zone	No. of societies		Amount outstanding on 1-4-1978	Amount issued during 1978-79	Amount realised during 1978-79	Amount outstanding as on 31-3-1979	Arrears
	On the rolls	Engaged in dispensing credit	Rs.	Rs.	Rs.	Rs.	Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Quilon	23	16	2,23,027	1,92,110	1,20,963	2,94,874	65,590
Ernakulam	20	5	78,368	32,555	35,394	75,529	N.A.
Kozhikode	7	3	85,204	1,250	1,650	84,804	83,554
Ponnani	34	15	3,60,000	16,500	13,750	3,62,750	Int. 33,309
Cannanore	12	12	2,91,874	45,260	39,017.25	2,98,116.75	Int. 97,200
Total	96	51	10,38,473	2,87,675	2,10,074.25	11,16,073.75	N.A.



## 7.18 Operation of credit societies for Fishermen for 1979-80

Sl.No.	Zone	No. of Societies		Amount outstanding on 1-4-1979 Rs.	Amount issued during 1979-80 Rs.	Amount realised during 1979-80 Rs.	Amount outstanding as on 31-3-1980 Rs.	Arrears Rs.
		On the rolls	Engaged in dispensing credit					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Quilon	22	15	260403	180500	160100	280803	64515
2.	Ernakulam	19	5	75529	44998	33307	92857	..
3.	Kozhikode	7	7	83554	..	650	82904	82904
4.	Ponnani	34	17	362759	15375	14825	363309	347984
5.	Cannanore	9	9	114237	92200	69537	136840	108560
	Total	91	53	899482	333073	278419	956713	603963

## 7.19 Details of Societies engaged in Fishing During 1977-78

Sl.No.	Zone	No. of M.U.C.S.		No. of boats operated		Catches during the year		Apportionment of catches
		On the rolls	Engaged in fishing	Country boats	Mechanised boats	Weight Kg.	Value Rs.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Quilon	268	99	150	128	925000	26,09,157	Government share 30% Reserve
2.	Ernakulam	29	1	..	24	303000	8,90,000	
3.	Ponnani	151	45	37	25	53000	2,77,000	
4.	Kozhikode	89	7	..	50	18400	18,79,200	
5.	Cannanore	42	6	..	5	38000	70,143	
	Total	529	158	187	232	1337400	57,25,500	

## 7.20 Details of Society Members engaged in Fishing during 1978-79

Sl. No.	District	No. of M.U.C.S.		No. of boats operated		Catches during the year		Apportionment of catches
		On the rolls	Engaged in fishing	Country boats	Mechanised boats	Weight M.T.	Value Rs.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Trivandrum	123	60	69	74	860	24,97,008	
2.	Quilon	90	33	64	25	60	1,80,000	
3.	Alleppey	50	5	32	3	20	1,65,846	
4.	Kottayam	6	..	..	..	..	..	
5.	Ernakulam	25	1	..	12	78	4,11,889.44	
6.	Trichur	46	12	13	9	7	1,85,550	
7.	Malappuram	92	30	21	64	388	18,39,769	
8.	Kozhikode	37	8	5	62	635	25,16,863	
9.	Cannanore	39	5	..	4	28	52,330.34	
	Total	508	154	204	253	2076	78,49,255.78	

## 7.21 Details of Societies engaged in Fishing during 1979-80

Sl. No.	Zone	No. of M.U.C.S.		No. of boats operated		Catches during the year		Apportionment of catches
		On the rolls	Engaged in fishing	No. of country boats	Mechanised boats	Weight Kg.	Value Rs.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Quilon	244	71	92	91	128	28,91,000	
2.	Ernakulam	28	..	..	..	..	..	
3.	Ponnani	128	32	21	66	160	12,20,000	
4.	Kozhikode	36	8	5	59	253	22,42,861	
5.	Cannanore	30	3	..	1	3	9000	
	Total	466	114	118	217	544	63,62,861	

## 7.22 Loans issued through Co-operative Societies

Year	Long term loan	Share capital loan and contribution (Rs.)	Subsidy (Rs.)
(1)	(2)	(3)	(4)
1956-57	41,500.00	..	..
1957-58	62,500.00	..	..
1958-59	1,09,550.00	..	..
1959-60	61,000.00	7,759.00	..
1960-61	1,15,660.00	21,339.50	..
1961-62	89,500.00	10,500.00	..
1962-63	1,77,409.50	..	..
1963-64	96,267.50	3,732.00	..
1964-65	99,600.00	10,152.00	..
1965-66	93,628.00	..	..
1966-67	4,22,500.00	16,688.00	..
1967-68	7,87,700.00	1,32,050.00	..
1968-69	3,22,500.00	..	..
1969-70	2,42,000.00	..	..
1970-71	2,26,500.00	14,12,000.00 (ARC)	7,50,000.00 (ARC)
1971-72	2,91,000.00	..	..
1972-73	2,60,000.00	8,89,500.00	..
1973-74	2,50,000.00	36,000.00 (ARC)	3,45,000.00
1974-75	50,000.00	3,55,000.00	..
1975-76	3,00,000.00	13,36,875.00 (ARC)	8,71,875.00 (ARC)
1976-77	7,00,000.00	10,20,000.00 (ARC)	9,68,750.00 (ARC)
1977-78	13,62,800.00	9,15,250.00	..
1978-79	32,25,000.00	..	..
1979-80	17,25,500.00	..	..
Total	1,11,12,115.00	61,66,845.00	29,35,625.00

## 7.23 Grant given to Co-operative Societies

<i>Sl. No.</i>	<i>Year</i>	<i>Amount Rs.</i>
(1)	(2)	(3)
1.	1959-60	10,000
2.	1960-61	45,000
3.	1961-62	54,500
4.	1962-63	66,000
5.	1963-64	46,500
6.	1964-65	40,000
7.	1965-66	40,000
8.	1966-67	1,46 500
9.	1967-68	1,00,000
10.	1968-69	2,30,500
11.	1969-70	1,96,500
12.	1970-71	92,500
13.	1971-72	1,65,000
14.	1972-73	1,66,000
15.	1973-74	93,000
16.	1974-75	79,500
17.	1975-76	51,500
18.	1976-77	34,000
19.	1977-78	29,500
20.	1978-79	16,500
21.	1979-80	30,500
Total		17,33,500

## VIII. RELIEF MEASURES

## 8.1 Details of Distress Relief given to Fishermen during 1977-78

Sl. No.	District	Death Relief		Loss of House		Loss of fishing implements		Accident Relief	
		No. of death	Amount given Rs.	Nos.	Amount given Rs.	No.	Amount given Rs.	No.	Amount given Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Trivandrum	12	28,700	18	1,375	33	6,475	6	11,500
2.	Quilon	14	40,300	19	1,900	19	6,500	5	2,400
3.	Alleppey	7	19,500	6	600	50	14,375	1	100
4.	Kottayam	1	1,500	..	..	..	..	..	..
5.	Ernakulam	8	22,300	..	..	3	1,450	3	500
6.	Trichur	5	14,550	6	600	7	2,350	3	2,200
7.	Malappuram	3	9,000	13	1,250	6	2,550	2	200
8.	Kozhikode	11	30,100	2	200	10	4,275	..	..
9.	Cannanore	7	18,200	4	600	15	4,450	1	100
Total		68	1,84,150	68	6,525	143	42,425	21	17,000

## 8.2 Details of Distress Relief given to Fishermen during 1978-79

Sl. No.	District	Death Relief		Loss of House		Loss of fishing implements		Accident Relief	
		No. of death	Amount given Rs.	Nos.	Amount given Rs.	Nos.	Amount given Rs.	Nos.	Amount given Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Trivandrum	13	34,400	58	5,275	16	4,825	4	7,000
2.	Quilon	11	27,000	58	5,800	23	7,550	5	7,100
3.	Alleppey	25	53,100	3	300	23	7,300	5	4,300
4.	Ernakulam	3	6,250	2	200	6	2,550	1	900
5.	Trichur	2	4,350	35	2,615	5	1,650	..	..
6.	Malappuram	5	12,000	13	1,300	12	3,900	..	..
7.	Kozhikode	5	11,600	..	..	20	8,050	..	..
8.	Cannanore	16	27,200	1	100	9	2,650	3	1,200
Total		80	1,75,900	170	15,590	114	38,475	18	20,500

## 8.3 Fishermen relief sanctioned by the Department

Year	Amount granted (Rs)	No. of beneficiaries
1963-64	5,000	13
1964-65	6,800	8
1965-66	11,600	16
1966-67	13,900	16
1967-68	30,000	32
1968-69	31,850	32
1969-70	29,520	31
1970-71	29,500	30
1971-72	49,700	52
1972-73	78,850	34
1973-74	1,19,400	43
1974-75	49,250	24
1975-76	2,41,400	105
1976-77	73,255	132
1977-78	2,50,100	300
1978-79	2,50,465	382
Total	12,70,590	1250

## IX. EDUCATION AND TRAINING

## 9.1 Details of Scholarships given to Fishermen Students for Higher Education during the year 1977-78

<i>Sl. No.</i>	<i>Name of course</i>	<i>No. of scholarships granted</i>	<i>Amount Rs.</i>
(1)	(2)	(3)	(4)
1.	Pre-Degree	108	27,000
2.	B.A., B.Sc., B.Com., B.Sc. Agri. B.V.Sc. etc.	68	27,200
3.	Diploma Course in Polytechnic	5	2,100
4.	Post Graduate Course	5	2,500
	Total	186	58,800

## 9.2 Details of Scholarships given to Fishermen students for Higher Education during the year 1978-79

<i>Sl. No.</i>	<i>Name of Course</i>	<i>Number of scholarships granted</i>	<i>Amount Rs.</i>
(1)	(2)	(3)	(4)
1.	Pre-Degree	182	45,500
2.	B.A., B.Sc., B.Com.	73	29,200
3.	M.B.B.S.	1	500
4.	Post Graduate Course	5	2,500
5.	Teachers Training Course	3	1,200
6.	B Ed.	4	2,000
7.	Diploma Course in Polytechnic	3	1,200
	Total	271	82,100

## 9.3 Details of Scholarships awarded to Fishermen Students

<i>Year</i>	<i>No. of students</i>	<i>Amount given</i>
(1)	(2)	(3)
1961-62	68	27,200
1962-63	71	28,700
1963-64	78	27,591
1964-65	76	30,750
1965-66	80	31,400
1966-67	78	27,511
1967-68	102	42,350
1968-69	105	36,142
1969-70	94	34,318
1970-71	84	41,791
1971-72	120	53,330
1972-73	101	34,528
1973-74	130	44,850
1974-75	84	27,150
1975-76	104	33,600
1976-77	88	27,000
1977-78	186	58,800
1978-79	271	82,100
1979-80	244	75,380



#### 9.4 Details of Fishermen trained at the Fishermen Training Centres under the Department

Sl.No.	Location of the Fishermen Training Centre	Year of start	No. of trainees admitted till the end of 1980	No. of trainees who completed the course till the end of 1980	No. of drop out	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Vizhinjam	1961	919	855	29	Figures in col. (4) include trainees who are undergoing training in different centres as on 31-12-1980.
2.	Neeendakara	1967	560	517	16	
3.	Ernakulam	1956	1110	1047	23	
4.	Beypore	1956	1020	961	18	
5.	Cannanore	1963	742	694	29	
Total		..	4351	4074	115	

#### 9.5 Details of students presented for the S.S.L.C. Examination by Regional Fisheries Technical High Schools

Name of School	March 1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>I. REGIONAL FISHERIES TECHNICAL HIGH SCHOOL, TRIVANDRUM</b>									
*Total presented	28	26	22	39	23	24	24	23	27
No. of pass	18	21	9	18	21	24	24	23	26
% of pass	64.3	80.8	40.9	46.2	91.3	100	100	100	96.3
*No. of 1st Class	1	6	1	1	..	3	3	3	6
<b>II. REGIONAL FISHERIES TECHNICAL HIGH SCHOOL, ERNAKULAM</b>									
Total presented	24	21	22	32	26	30	24	24	24
No. of pass	11	16	15	23	24	30	17	20	18
% of pass	46	76	68	72	92	100	70	83.3	75
No. of 1st Class	..	6	1	2	2	4	1*	N.A.	N.A.
<b>III. REGIONAL FISHERIES TECHNICAL HIGH SCHOOL, CANNANORE</b>									
Total presented	25	28	28	40	22	23	23	25	26
No. of pass	16	19	28	28	22	23	18	18	25
% of pass	64	67.86	100	70	100	100	78	78	96.2
No. of 1st Class	2	3	13	4	1	..	..	1	N.A.
<b>TOTAL</b>									
Total presented	77	75	72	111	71	77	71	72	77
No. of pass	45	56	52	69	67	77	59	61	69
% of pass	58.4	74.7	72.2	62.2	94.4	100	83.1	84.7	89.6
No. of 1st Class	3	15	15	7	3	7	4	N.A.	N.A.

## 9.6 Training Manpower for Indian Marine Fisheries

<i>Name of discipline</i>	<i>Institution where training is offered</i>	<i>Duration of the course</i>	<i>Nature of certification</i>	<i>Remarks</i>
1. Fishing second hands	Central Institute of Fisheries Nautical & Engineering Training, Cochin	15 months institutional training followed by 27 months—Sea service	Certificate of competency issued by Ministry of Transport	The candidate could eventually qualify as skippers of fishing vessels after acquiring further necessary sea service
2. Do.	do. Unit, Madras	do.	do.	
3. Fishing Vessel Engine Drivers	do. Unit, Cochin	15 months insittutional training followed by 6 months workshop and 9 months engine room service	do.	
4. Do.	do. Unit, Madras	do.	do.	The candidate could eventually qualify as Engineers of fishing vessels after acquiring required further engine room service.
5. Radio Telephone Operators	do. Unit, Cochin	9 months	Certificate of proficiency issued by the Ministry of communication.	
6. Do.	do. Unit, Madras	9 months	do.	
7. Fishing Boat building technicians	do. Unit, Cochin	15 months	Certificate issued by Government of India	
8. Shore technicians	do. do.	12 months	do.	
9. Do.	do. Unit, Madras	12 months	do.	
10. Fishing Gear Technicians	do. Unit, Cochin	9 months	do.	
11. Do.	do. Unit, Madras	9 do.	do.	
12. Fish Processing technicians	Intergrated Fisheries Project, Cochin	6 months	do.	
13. Refrigeration technicians	do.	6 months	do.	
14. Purse seine Master Fishermen	do.	8 months	do.	
15. Fish Processing technicians	College of Fisheries, Mangalore	12 months	Diploma in fish processing Technology	

## X. HOUSING

## 10.1 Details of Houses Constructed for Fishermen

<i>Sl. No.</i>	<i>Year of completion</i>	<i>Under housing and colonisation scheme</i>	<i>For victims of sea erosion &amp; fire accidents</i>	<i>Under grant scheme in plots owned by fishermen</i>	<i>Remarks</i>
(1)	(2)	(3)	(4)	(5)	(6)
1	1961-62	20	..	..	(1) At Pallithottam in Quilon fire destroyed 150 houses belonging to fishermen. Government as per G. O. (MS) 3878/68 dated 23-12-1968 sanctioned a matching grant of Rs. 85,000 for construction of houses. A local committee with District Collector Quilon as Chairman was formed for construction of houses and construction of 110 houses has been completed.
2	1962-63	..	..	..	
3	1963-64	65	..	..	
4	1964-65	60	..	..	
5	1965-66	56	..	..	
6	1966-67	59	..	..	
7	1967-68	30	..	..	
8	1968-69	189	..	..	
9	1969-70	108	110 (1) 142 (2)		(2) Poonthura 75 and Panathura 67
10	1970-71	15	..	..	
11	1971-72	10	..	..	
12	1972-73	605	..	..	
13	1973-74	274	..	..	
14	1974-75	66	..	431	
15	1975-76	54	103 (3)	354	(3) Poonthura
16	1976-77	..	97 (4)	1034	(4) Poonthura
17	1977-78	..	..	590	
Total		1611	452	2409	

## 10.2 Details of Houses Constructed under Housing and Colonisation Scheme

<i>Year of construction</i>	<i>Name of Colony</i>	<i>District</i>	<i>No. of houses constructed</i>	<i>Total for the year</i>
(1)	(2)	(3)	(4)	(5)
1961-62	Thalayi	Cannanore	20	20
1962-63	..	..	..	..
1963-64	Vizhinjam	Trivandrum	25	..
"	Thangasseri	Quilon	20	..
"	Pallikkara	Cannanore	20	65
1964-65	Thangasseri	Quilon	20	..
"	Munambam	Ernakulam	20	..
"	Ponnani	Malappuram	20	60
1965-66	Anapuzha	Trichur	20	..
"	Tanur	Malappuram	16	..
"	Parappanangadi	"	20	56
1966-67	Moothedathukavu	Kottayam	59	59

(1)	(2)	(3)	(4)	(5)
1967-68	Ponnani	Malappuram	10	..
"	Kathiyalam	Trichur	10	..
"	Anapuzha	"	10	30
1968-69	Azhikode	Cannanore	16	..
"	Koipady	"	20	..
"	Kadavanad	Malappuram	10	..
"	Anapuzha	Trichur	10	..
"	Panthalayini	Kozhikode	30	..
"	Kadalundi	Malappuram	18	..
"	Ponnani	"	10	..
"	Puthenkadappuram	Trichur	20	..
"	Munambam	Ernakulam	5	..
"	Chellanam	"	10	..
"	Kalnad	Cannanore	20	..
"	Karimkulam	Trivandrum	20	189
1969-70	Poonthura	Trivandrum	5	..
"	Arayankadappuram	Malappuram	10	..
"	Kadalundi	"	2	..
"	Palapetty	"	10	..
"	Chellanam	Ernakulam	26	..
"	Blangad	Trichur	20	..
"	Thaikadappuram	Cannanore	10	..
"	Manasseri	Ernakulam	15	..
"	Puduponnani	Malappuram	10	108
1970-71	Puduponnandi	Malappuram	10	..
"	Poonthura	Trivandrum	5	15
1971-72	Puduponnani	Malappuram	10	10
1972-73	Vettoor	Trivandrum	30	..
"	South Kollengode	"	30	..
"	Paruthiyoor	"	10	..
"	Fort Quilon	Quilon	120	..
"	Thangasserry	"	20	..
"	Kaikulangara	"	20	..
"	Pallithottam	"	20	..
"	Fort Cochin	Ernakulam	38	..
"	Chellanam	"	4	..
"	Udayamperur	"	12	..
"	Edakazhiyoor	Trichur	20	..
"	Nattika	Trichur	10	..
"	Vadanappally	"	10	..
"	Anapuzha	"	31	..

(1)	(2)	(3)	(4)	(5)
1972-73	Ponnani	Malappuram	20	..
"	Kadalundy	"	10	..
"	Paravanna	"	6	..
"	Alungakadappuram	"	20	..
"	Koottayi	"	20	..
"	Quilandy	Kozhikode	30	..
"	Manjeswar	Cannanore	14	..
"	Koipady	"	30	..
"	Adakathbail	"	20	..
"	Azheekode	"	20	..
"	Thayyil	"	20	..
"	Mattool	"	20	605
1973-74	Pallithottam	Quilon	10	..
"	Thycattussery	Alleppey	20	..
"	Fort Cochin	Ernakulam	40	..
"	Udayamperur	"	18	..
"	Kaipamangalam	Trichur	12	..
"	Paravanna	Malappuram	14	..
"	Parappanangadi	"	10	..
"	Arayankadappuram	"	20	..
"	Tanur	"	20	..
"	Puthiakadappuram	"	20	..
"	Cherode	Kozhikode	20	..
"	Kottakkal	"	20	..
"	Chaliyam	"	20	..
"	Padannakadappuram	Cannanore	30	274
1974-75	Madakkara	Kozhikode	16	..
"	Marianad	Trivandrum	30	..
"	Poonjavi	Cannanore	20	66
1975-76	Moothakara	Quilon	54	54
Grand Total				1611



## 10.3 Details of Houses Sanctioned and Completed Under Grant Scheme

District	Number of houses sanctioned for construction during					Number of houses completed till the end of 1979 out of the houses sanctioned during					Total number of houses sanctioned under grant scheme	Total number of houses completed till the end of 1979	Total number of houses completed till the end of 1980
	1973-74	1974-75	1975-76	1976-77	1977-78	1973-74	1974-75	1975-76	1976-77	1977-78	(12)	(13)	(14)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Trivandrum	96	..	120	..	198	95	..	115	..	138	414	348	355
Quilon	97	..	119	..	200	93	..	117	..	191	416	401	407
Alleppey	120	..	120	..	199	118	..	120	..	190	439	428	433
Kottayam	38	..	40	..	80	38	..	40	..	79	158	157	157
Ernakulam	98	..	119	..	200	97	..	118	..	195	417	410	411
Trichur	120	..	120	..	238	116	..	118	..	211	478	445	455
Malappuram	222	..	120	..	365	209	..	95	..	172	707	476	580
Calicut	140	..	120	..	235	120	..	109	..	146	495	375	404
Cananore	128	..	120	..	238	121	..	113	..	203	486	437	448
<b>Total</b>	<b>1059</b>	<b>..</b>	<b>998</b>	<b>..</b>	<b>1953</b>	<b>1007</b>	<b>..</b>	<b>945</b>	<b>..</b>	<b>1525</b>	<b>4010</b>	<b>3477</b>	<b>3650</b>

## XI. FISHERIES DISPENSARIES

## 11.1 Details of Fisheries Dispensaries as on 31-12-1980

Sl. No.	Place of location of Dispensary	District	Remarks
(1)	(2)	(3)	(4)
1	Edava	Trivandrum	Government in G. O. MS. No. 37/72/DD dated 9-3-1972 sanctioned the establishment of 8 dispensaries and also ordered to pay Rs. 10,000 per annum for each of the dispensaries towards cost of drugs by the Department of Fisheries. Dispensaries at Edava, Thottappally, Karimpuram, Thevarkadappuram, Kottakkal and Ajanur function in permanent buildings, Dispensaries at Paravoor and Nayarambalam are functioning in temporary buildings.
2	Paravoor	Quilon	
3	(Pozhikara) Thottappally	Alleppey	
4	Nayarambalam	Ernakulam	
5	Karimpuram	Trichur	
6	Thevarkadappuram	Malappuram	
7	Kottakkal	Kozhikode	
8	(Iringal) Ajanur	Cannanore	
9	Ettikulam	Cannanore	
10	Thiruvallam	Trivandrum	Government as per G. O. Rt. 671/73/DD dated 9-4-1973 sanctioned the dispensary. The dispensary is functioning in a permanent building. Government have sanctioned 10 dispensaries under Rural Dispensaries Scheme as follows:
11	Alappad	Quilon	G. O. MS. 211/72/HD dated 26-8-1972. The dispensary started functioning from 1-11-1972 in temporary building.
12	(Azheekal) Pallithode	Alleppey	G. O. MS. 212/72/HD dated 26-8-1972. The dispensary started functioning in temporary building from 15-12-1972.
13	Chellanam	Ernakulam	G. O. MS. 220/72/HD dated 26-8-1972. The dispensary started functioning from 13-9-1972 in temporary building.
14	Nattika	Trichur	G. O. MS. 213/72/HD dated 26-8-1972. The dispensary started functioning in temporary building from 30-9-1972.
15	Punnayoor	Trichur	G. O. MS. 214/72/HD dated 26-8-1972. The dispensary is functioning in permanent building from 3-5-1980.
16	Vallikkunnu	Malappuram	G. O. MS. 215/72/HD dated 26-8-1972. The dispensary is started functioning in temporary building from 26-3-1973.
17	(Kadalundy) Madappally	Kozhikode	G. O. MS. 216/72/HD dated 26-8-1972. The dispensary is functioning in permanent building from 28-7-1977.
18	Arikady	Cannanore	G. O. MS. 217/72/HD. dated 26-8-1972. The dispensary started functioning in temporary building from 17-10-1972.
19	Thaikadappuram	do.	G. O. MS. 218/72/HD dated 26-8-1972. The dispensary is functioning in permanent building.
20	Mavilakadapuram	do.	G. O. MS. 219/72/HD dated 26-8-1972. The dispensary is functioning in temporary building.
21	Puthukurichi	Trivandrum	Government in G. O. MS. 202/78/HD dated 14-7-1978 sanctioned the up-gradation of the dispensary to full time regular dispensary under the Fisheries Department. The dispensary is functioning in temporary building.
22	Arattupuzha	Alleppey	
23	Panoor-Pallana	do.	
24	Puthuvaipu	Ernakulam	
25	Andathode	Trichur	
26	Koottayi Kadappuram	Malappuram	
27	Veliangode Kadappuram	do.	
28	Badagara	Kozhikode	
29	Muzhipilangad	Cannanore	
30	Valiaparamba	do.	The dispensaries have not started functioning.
31	Edavilangu	Trichur	
			Government as per G. O. Rt. 351/79 dated 22-2-1979 sanctioned the construction of the dispensaries.
			Government in G. O. Rt. 2818/80/F&PD dated 3-11-1980 sanctioned the dispensary. The dispensary has not started functioning.

## XII. FISHERIES ROADS

## 12.1 Link Roads Constructed by the Department of Fisheries from 1966-67 to 1979-80

<i>Year</i>	<i>Provision (Rs. on lakhs)</i>	<i>Expenditure (Rs. in lakhs)</i>	<i>Physical achievement</i>
(1)	(2)	(3)	(4)
1966-67	5.000	4.070	
1967-68	7.250	2.990	
1968-69	..	..	59 roads have been completed till the end of of 1979-80
1969-70	3.000	7.260	
1970-71	10.000	3.610	
1971-72	15.000	9.910	
1972-73	25.000	18.260	
1973-74	15.000	14.270	
1974-75	1.000	13.270	
1975-76	5.000	19.080	
1976-77	30.000	12.930	
1977-78	25.000	20.000	
1978-79	25.000	18.509	
1979-80	25.000	19.540	

## XIII. FISHERY RESEARCH STATIONS

## 13.1 State Fishery Research Station in Kerala as on 31-3-1979

Sl. No.	Name and address of the Station	Date of starting	Work attending to
(1)	(2)	(3)	(4)
1	Marine Survey Station, Vizhinjam P. O., Vizhinjam Head of Station:- Research Officer	28-3-1955	Biological studies on species, gearwise landings, trend of fisheries at Vizhinjam, pollution of sea by the effluence of T. T. P., Trivandrum.
2	Lobster Research Station*, Vizhinjam P. O., Vizhinjam Head of Station:- Lobster Culturist (in the cadre of Asst. Director)	11-11-1974	Research and Development of Spiny Lobster ( <i>Panulirus spp.</i> ) of Kerala Coast. Research work on systematics, breeding experiments, rearing of phyllosoma larvae to puerulus implementation of conservational measures and eventually to start a lobster farm under controlled conditions.
3	Pilot Project for Pearl Culture, P. O. Vizhinjam Head of Station:- Assistant Project Officer (in the cadre of Dy. Director of Fisheries now deputation from Central Marine Fisheries Research Institute).	13-1-1976	The only Pilot Project in India for culturing pearls on a commercial scale with an annual return of Rs. Six lakhs worth of pearls to substitute import of pearls and for exploring foreign markets. An anticipated expenditure of Rs. 11.09 lakhs and a net profit of Rs. 15 lakhs are anticipated during the five year period of the project by implanting pearl oysters with shell beadnucians and culturing in cages suspended from floating rafts (30 Nos.) inside the Vizhinjam Bay.
4	Pilot Project for Mussel Culture, Vizhinjam P. O., Vizhinjam Head of Station:- Project Officer (in the cadre of Dy. Director of Fisheries)	20-6-1975	Pilot-scale commercial culture of mussels on synthetic ropes hung from floating wooden/bamboo rafts in the Vizhinjam Bay. Notless than 90 rafts of 5 x 5 metres are to be constructed within the project period of five year and mussels are to be cultured on 50 ropes per raft.
5	Estuarine Research Station*, Ayiramthengu Head of Station:- Research Officer	1955 at Ernakulam, shifted to the present station in 1967.	Binomics of Mulletts, studies on estuarine fish farming and trend of fisheries in Kayamkulam lake.
6	Fisheries Research Station, Edathua (via) Thiruvalla Head of Station:- Research Officer	2/64	Artificial propagation of macrobrachium rosenbergi (Giant fresh water prawn), Economics of Palaemonidae, effects of insecticides on palaemonidae, and hydrobiological studies of fish farms.
7	Lime Shell Research Station*, Kumarakom Head of Station:- Research Officer	7-2-1964	Survey of lime shell resources and ecological studies. Identification of clams, life history studies and spat fall and rate of growth and rehabilitation of depleted clam beds.
8	Fish Breeding Centre, Azhikode* Head of Station:- Research Officer	1969	Economics of dipnet fishing at Azhikode and induced breeding of mullets.
9	Fresh Water Biological Station, Malampuzha Head of Station:- Deputy Director	1967	Induced breeding of major carps, breeding of common carps, studies on the limnology of Malampuzha lake, composite fish culture hydrobiological survey of rivers, behaviours of <i>Tilapia mossambica</i> in Malampuzha lake and frog culture, survey of hill stream fisheries production of economic fish seed gear efficiency studies. Introduction of fish culture in reservoirs, Panchayat tanks, private tanks etc. Routine analysis of oil sardines and mackerals trend of Marine Fisheries in Malabar area, studies on the biology of fishes, investigation on the economics of mechanised fishing in Calicut Region, investigation on the pollution of Chaliyar river by the effluence of Gwalior Rayons, Mavoor.
10	Marine Biological Station*, West Hill, Calicut Head of Station:- Asst. Director.	1921	(1) Bio-chemical investigation. (2) Studies on (a) fish protein concentrates- (b) processing and preservation (3) Bacteriological studies on clams, mussels, processing plants (4) Home economics and dietetics preparation of new convenient food items like fish paste, fish applam fish flakes etc. and also preparation of new recipes for cooking fish item (5) Analysis of fishery products and water samples.
11	Fisheries Technological Station, West Hill, Calicut Head of Station:- Asst. Director	..	Production of quality fish seeds and experimental frog culture.
12	Fisheries Complex, Pannivelichira, Kozhencherry Head of Station:- Superintendent	6/67	

\* Research Station wound up during 1979-80.

## XIV. PLAN SCHEMES

## 14.1. Details of Plan Schemes

## FIRST FIVE YEAR PLAN

<i>Name of Scheme</i>	<i>Outlay (Rs. in lakhs)</i>	<i>Expenditure (Rs. in lakhs)</i>
1 Research Station at Cape and Ernakulam	2.00	
2 Marine Fisheries	3.27	
3 Inland Fisheries	2.66	
4 Other schemes	3.18	
Total*	11.11 lakhs	2.74

\*The total provision was Rs. 10.15 lakhs which was revised to Rs. 11.11 lakhs

## SECOND FIVE YEAR PLAN

<i>Name of Scheme</i>	<i>Outlay (Rs. in lakhs)</i>	<i>Expenditure (Rs. in lakhs)</i>
1 Issuc of loans to Fishermen Co-operative Societies and Organisation of Fishermen Co-operative Societies	10.20	6.85
2 Supply of fishery requisites	5.59	3.32
3 Stocking of ponds and intensive seed collection	3.11	1.30
4 Construction of breakwater and development of fishing harbours	21.95	0.15
5 Introduction of Ice Plant and Cold Storage	21.55	5.81
6 Erection of cold storage and Refrigeration Plant at Cochin	Provision included under item 5	12.67
7 Identification and guide lights	1.15	0.25
8 Mechanisation and improvement of fishing crafts	8.36	8.56
9 Research scheme	2.19	1.69
10 Development and exploitation of major reservoirs	0.50	0.62
11 Salt subsidy scheme	9.36	15.36
12 Rural fishery demonstration	0.63	0.61
13 Training of Personnel	1.83	1.79
14 Expansion of Fisheries Technological Station	0.75	0.99
15 Estuarine Fish Farm	1.00	0.55
16 Fresh water aquarium	Scheme not taken up	
17 Provision of storage sheds		
18 Fish marketing and model markets		
19 Introduction of power fishing		
Total	88.17	60.52

The Plan provision was 93.37 lakhs. The provision relating to scheme not taken up is not included in the figure shown.



## III FIVE YEAR PLAN

<i>Name of Scheme</i>		<i>Outlay</i> (Rs. in lakhs)	<i>Expenditure</i>
1	Mechanisation and Fishing Crafts	92.45	108.53
2	Commercial Trawler fishing	4.00	3.71
3	Supply of fishery requisites	16.86	10.97
4	Development of Major Reservoirs	4.54	4.83
5	Fish Farming and River Fisheries	17.77	6.67
6	Fishing harbours and landing centres	98.98	81.81
7	Ice Plants, Cold Storage and transport vehicles	63.00	65.19
8	Training of Fishermen	13.45	11.63
9	Freezing factories	1.50	1.13
10	Canning factories	..	..
11	Fish curing	14.47	14.94
12	Housing and colonisation	6.00	5.22
13	Provision of community amenities	7.52	3.97
14	Education and staff training	2.40	2.41
15	Subsidiary Industries	0.75	0.01
16	Research and Statistics	5.44	3.52
17	Administration	5.99	6.37
18	Organisation of Fishermen Co-operative Societies	11.08	11.05
19	I. C. A. R. Scheme	1.47	1.28
Total		367.67	343.24

## ANNUAL PLAN (1966-67)

<i>Name of Scheme</i>		<i>Outlay</i> (Rs. in lakhs)	<i>Expenditure</i>
1	Mechanisation of fishing crafts	41.33	99.06
2	Estuarine Fish Farm and River Fisheries	2.71	0.83
3	Ice Plants and Cold Storages	13.89	18.50
4	Supply of fishery requisites	8.27	10.18
5	Development of Major Reservoirs	1.47	0.67
6	Training of fishermen	2.80	2.95
7	Research and Statistics	1.41	1.42
8	Fishermen Co-operative Societies	6.63	6.48
9	Development of roads	5.00	4.07
10	Headquarters staff	0.60	0.78
11	Education and staff training	0.90	0.74
12	Applied Nutrition Programme	2.00	2.91
13	Technical School for fishermen children	2.00	0.40
14	Kerala Fisheries Corporation	40.00	40.00
15	Fisheries Corporation in collaboration with M/s. Van Camp Sea Food of U. S. A.	9.50	..
16	Loans for intensifying fish production in C. D. Blocks	..	..
17	Mechanised fishing boats under I. N. P.	..	..
18	Statistical Unit and sample survey on marine fisheries	..	..
CENTRALLY SPONSORED SCHEMES			
19	Fishing Harbours and landing centres	66.00	32.53
20	I. C. A. R. Schemes	0.93	0.76
Total		205.44	222.28

## ANNUAL PLAN 1967-68

<i>Name of Scheme</i>		<i>Outlay</i>	<i>Expenditure</i> (Rs. in lakhs)
1	Mechanisation of fishing crafts	165.000	166.014
2	Estuarine fish farm and river fisheries	2.333	0.728
3	Ice Plants and Cold Storages	19.569	16.274
4	Supply of fishery requisites	13.342	5.490
5	Development of major reservoirs	2.372	2.514
6	Training of fishermen	1.650	0.573
7	Research and Statistics	3.418	2.063
8	Fishermen Co-operative Societies	11.100	11.010
9	Development of roads	7.254	2.155
10	Headquarters staff	1.500	1.374
11	Education and staff training	3.500	2.154
12	Applied Nutrition Programme	1.640	2.086
13	Technical School for fishermen children	..	..
14	Kerala Fisheries Corporation	24.000	15.000
15	Central Fisheries Corporation	1.000	..
16	Loan for intensifying fish production in C. D. Blocks	..	..
17	Mechanised fishing boats under INP	..	..
18	Statistical Unit and sample survey on marine fisheries	0.250	..
19	Housing and Colonisation	10.000	2.134
20	Boat Building Yards, Service Stations and Slipways	5.000	0.118
21	Fisheries Schools and Training Centres	5.188	3.704
22	F. C. S. Contribution to Agricultural Refinance Corporation	5.000	1.320
23	Community amenities	1.000	0.207
24	Investigation for the construction of fishing harbours at Kayamkulam and Koottayi	0.500	..
25	Fishing Harbours	59.096	30.716
26	I. C. A. R. Schemes	1.332	0.883
Total		345.344	267.517

## ANNUAL PLAN 1968-69

<i>Sl. No.</i>	<i>Name of Scheme</i>	<i>Budget outlay for</i> 1968-69 (Rs. in lakhs)	<i>Expenditure</i>
1	Mechanisation of fishing crafts	121.133	162.892
2	Eatuarine Fish Farm and River Fisheries	1.866	0.100
3	Ice Plants and Cold Storages	38.088	18.826
4	Supply of fishery requisites	12.200	3.281
5	Development of major reservoirs	6.775	3.885
6	Training of fishermen	0.052	0.209
7	Research and Statistics	3.893	1.275
8	Fishermen Co-operative Societies	8.927	6.565
9	Headquarters staff	1.618	0.866

<i>Sl. No.</i>	<i>Name of Scheme</i>	<i>Budget outlay for 1968-69 (Rs. in lakhs)</i>	<i>Expenditure</i>
10	Fishermen training programme	1.200	1.226
11	Applied Nutrition Programme	1.430	0.345
12	Technical School for fishermen children	0.620	1.572
13	Kerala Fisheries Corporation	29.000	10.000
14	Housing and Colonisation	14.500	5.778
15	Boat Building Yards, Service stations and slipways	7.800	1.100
16	Fisheries Schools and Training Centres	6.088	7.817
17	Ameliorative measures to fishermen	3.000	7.186
18	Community amenities to Fishermen	11.764	3.095
19	Investigation for the construction of fishing harbour at Kayamkulam and Koottayi	0.200	0.020
Sub Total (State Plan Schemes)		270.154	236.038
<b>CENTRALLY SPONSORED SCHEMES</b>			
1.	Fishing harbours and landing centres	56.545	24.501
2.	ICAR Schemes	0.110	..
Centrally Sponsored Schemes (Sub Total)		56.655	24.501
Total		326.809	260.539

## IV FIVE YEAR PLAN

<i>Name of Scheme</i>	<i>IV Plan outlay</i>	<i>Actual Budget provision</i>	<i>Expenditure</i>
(1)	(2)	(3)	(4)
		(Rs. in lakhs)	
1. Mechanised fishing and trawler fishing	654.00	324.50	295.852
2. Boat Yards and Service Stations	3.00	3.00	2.127
3. Ice Plants and Cold Storages	40.00	55.00	20.590
4. Training Centres and Schools	35.00	19.624	20.032
5. Roads	100.00	78.005	53.300
6. Inland Fisheries and Reservoirs	15.00	17.25	6.282
7. Other Fisheries	10.00	4.00	1.680
8. Housing, colonisation and welfare measures	50.00	96.00	50.348
9. Research	20.00	8.01	1.217
10. Man Power Training and Expertise	6.00	2.30	2.126
11. Supply of fishery requisites	16.00	12.50	11.996
12. Co-operation	100.00	26.50	17.824
13. A. R. C.	..	85.65	36.517
14. Distribution of fish	36.00	1.99	..
15. Fishing Harbours	..	45.00	21.450
16. Administration and Extension	15.00	..	..
17. Sample Survey of Marine Fish Landings	..	0.20	0.030
18. Assistance to Kerala Fisheries Corporation	..	..	22.000
Total	1100.00	779.529	563.371

V FIVE YEAR PLAN  
Annual Plan 1974-75

Sl. No.	Code No.	Name of Scheme	V Plan outlay	1974-75	
				Provision	Expenditure*
(1)	(2)	(3)	(4)	(5)	(6)
				(Rs. in lakhs)	
1	FSH 001	Fish Seed Production	10.00	0.50	0.50
2	" 002	Fish Farming in Brackish waters	3.50	0.50	..
		Development of small water areas	2.50		
3	" 003	Development of Reservoir Fisheries	7.50	..	..
4	" 004	Fish Seed Farm	30.00	0.75	0.35
5	" 005	Assistance to traditional fisheries	9.00	1.00	0.96
6	" 006	Small boat mechanisation	302.00	36.50	31.45
7	" 007	Deep Sea Fishing	110.00	25.00	25.00
8	" 008	Repair and refitting facilities	4.00	1.00	..
9	" 009	Processing, marketing and storage	70.00	8.25	2.67
10	" 010	Curing and Drying	2.00	..	..
11	" 011	Organisation of internal markets	..	..	..
12	" 012	Utilisation of trash fish	..	..	..
13	" 013	Research and Training in Marine Fisheries	64.50	9.00	4.92
14	" 014	Fresh Water Research	2.00	0.70	0.30
15	" 015	Training to pisciculturists	1.00	0.20	0.09
16	" 016	Planning and Statistical Cell	5.00	..	..
17	" 017	Extension	5.00	..	..
18	" 018	Assistance to Fishermen Co-operative Societies	125.00	17.50	3.16
19	" 019	Housing and colonisation	150.00	7.10	25.12
20	" 020	Guide lights	4.00	..	..
21	" 021	Assistance to Kerala Fisheries Corporation	100.00	15.00	15.00
22	" 022	Establishment of Harbour Engineering Wing	8.00	..	..
23	" 023	Roads	..	1.00	13.27
		Sub Total	..	124.00	122.79
		C. S. 043 Fishing Harbour and landing facilities		25.00	18.12
		Grand Total		149.00	140.91

\* Expenditure according to Paim Progress Report.

V FIVE YEAR PLAN  
Annual Plan 1975-76

(Rs. in lakhs)

Code No.	Name of Scheme	1975-76	
		Provision	Expenditure*
(1)	(2)	(3)	(4)
FSH 001	Planning and Statistical Cell	0.50	0.09
„ 002	Extension	0.50	..
„ 003	Fish Seed Farms	2.50	1.08
„ 004	Fish Seed Production	0.67	0.46
„ 009	Reservoir Fisheries	1.10	0.61
„ 005	Research in Marine Fisheries	1.68	0.65
„ 006	Fresh Water Research	0.50	0.38
„ 007	Training in Marine Fisheries	9.80	4.49
„ 008	Training to Pisciculturists	0.30	0.09
„ 010	Marketing, processing and storage	4.35	3.03
„ 011	Curing and drying	0.50	..
„ 012	Small boat mechanisation	84.80	46.42
„ 013	Assistance to traditional fisheries	2.00	1.78
„ 014	Repair and refitting facilities	0.25	..
„ 015	Assistance to Fishermen Co-operative Societies	21.65	18.26
„ 016	Housing and Colonisation	17.00	22.70
„ 017	Guide Light	0.50	..
„ 018	Assistance to Kerala Fisheries Corporation	30.00	68.10
„ 019	Establishment of Harbour Engineering Wing	1.00	..
„ 020	Roads	5.00	19.08
„ 021	A. R. C. Scheme	15.25	14.26
	Sub Total—State Plan Schemes	200.00**	201.48
CS 0100	Fishing harbour and landing facilities	82.09	6.81
	Sub Total—Centrally Sponsored Scheme	82.09	6.81
	Grand Total	282.09	208.29

\* Expenditure according to Plan Progress Report.

\*\* The total provision includes Rs. 0.15 lakh under minor works.



## V FIVE YEAR PLAN

## Annual Plan 1976-77

(Rs. in lakhs)

Code No.	Name of Scheme	Budget provision	*Expenditure till 31-3-1977
(1)	(2)	(3)	(4)
<b>I. STATE PLAN SCHEMES</b>			
FSH 001	Planning and Statistical Cell	0.500	0.114
" 002	Extension	1.000	0.953
" 003	Fish Seed Farms	5.337	0.736
" 004	Fish Seed Production	4.141	2.538
" 009	Reservoir Fisheries	3.000	1.189
" 005	Research in Marine Fisheries	6.120	3.501
" 006	Fresh Water Research	0.500	0.319
" 007	Research and Training in Marine Fisheries	11.534	7.918
" 008	Training to pisciculturists	0.300	0.212
" 010	Storage, processing and marketing	6.718	3.068
" 011	Curing and drying	1.000	..
" 012	Small boat mechanisation	74.350	69.465
" 013	Boat Building Yards	..	..
" 014	Assistance to traditional fisheries	3.000	2.616
" 015	Repair and refitting facilities	1.500	..
" 016	Assistance to Fishermen Co-operative Societies	5.000	12.103
" 017	Housing and colonisation	25.000	12.320
" 018	Guide lights	3.000	0.022
" 019	Assistance to K. F. C.	35.000	..
" 020	Harbour Engineering	1.000	..
" 021	Roads	30.000	12.082
" 022	Development of fisheries in selected areas (ARC Schemes)	30.000	12.962
" 023	Development of Vizhinjam and Neendakara with World Bank assistance	1.000	..
Total—State Plan Schemes		249.000	142.118
<b>II. CENTRALLY SPONSORED SCHEMES</b>			
Fishing harbour and landing centres		5.000	2.368
Infrastructure facilities in fishing villages		1.001	..
Total		6.001	2.368
Grand Total		255.001	144.486

\* Expenditure according to Plan Progress Report.

## V. FIVE YEAR PLAN

## Annual Plan 1977-78

Code No.	Name of Scheme	Budget provision	Expenditure till 31-3-1978*
(1)	(2)	(3)	(4)
<b>A. STATE SECTOR SCHEMES</b>			
FSH 001	Planning and Statistical Cell	3.000	0.514
" 002	Extension	1.010	2.257
" 003	Development of Small Water areas	0.019	..
" 004	Fish Seed Farms	2.722	0.548
" 005	Brackish Water Fish Farming	2.800	0.669
" 006	Fish Seed Production	7.480	4.067
" 007	Research in Marine Fisheries	7.003	4.886
" 008	Fresh Water Research	0.300	0.240
" 009	Research and Training in Marine Fisheries	11.150	8.658
" 010	Training to Private Pisciculturists	0.300	0.077
" 011	Subsidy to Private Pisciculturists	1.000	..
" 012	Reservoir Fisheries	3.500	2.742
" 013	Storage, Processing and Marketing	18.305	8.305
" 015	Small Boat mechanisation	61.499	70.010
" 017	Assistance to traditional fisheries	3.001	1.333
" 018	Repair and Refitting Facilities	..	..
" 019	Assistance to Fishermen Co-operatives	25.388	24.180
" 020	Housing and colonisation	25.000	25.550
" 021	Guide Lights	2.000	1.670
" 022	Assistance to Kerala Fisheries Corporation	38.000	60.000
" 023	Land acquisition charges for Cochin Fishing Harbour Project	0.001	..
" 024	Infrastructure facilities in two selected villages	6.000	0.050
" 025	Community Amenities and Dispensaries	0.350	1.177
" 026	Harbour Engineering Wing	1.000	0.212
" 027	Roads	25.000	20.000
" 028	A. R. C. Schemes	7.150	4.518
" 029	Development of Vizhinjam, Neendakara Harbours with World Bank Assistance	0.719	..
	Transfer to Fishermen Relief Fund inter account Transfer	25.000	25.000
	Kerala Fishermen's Welfare Corporation Investments	10.000	10.000
<b>B. CENTRALLY SPONSORED SCHEMES</b>			
FSH CS 036	Development of Brackish Water Fish Farming	0.001	..
FSH CS 037	Fishing Harbour and landing facilities	30.000	16.981
FSH CS 038	Infrastructure facilities in two selected villages	4.000	..
FSH CS 039	Strengthening of the Organisation for Fisheries Extension Work	1.000	0.000
<b>C. CENTRAL SECTOR SCHEMES</b>			
FSH CSS 007	Fish Farmer's Development Agency in Palghat District	0.001	3.700
Grand Total		323.699	297.344

\*Expenditure according to Plan Progress Report

## EXPENDITURE STATEMENT FOR THE YEAR 1978-79

(Rs. in lakhs)

Code No.	Name of Scheme	Provision for 1978-79	Expenditure for 1978-79*
(1)	(2)	(3)	(4)
FSH 001	Planning and Statistical Cell	3.000	2.049
" 002	Extension	2.500	2.852
" 003	Development of Small water areas	2.000	..
" 004	Development of Tuna fishing	22.000	..
" 005	Fish Seed Farms	10.888	4.299
" 006	Brackish water fish farming	3.620	0.791
" 007	Patrolling in Backwaters	3.000	0.858
" 008	Fish Seed Production	14.094	1.513
" 009	Research in Marine Fisheries	9.500	4.192
" 011	Survey of Inland and Brackish water fisheries	2.000	..
" 012	Research and Training in Marine Fisheries	7.706	10.134
" 013	Training to Pisciculturists	0.300	0.046
" 014	Subsidy to private pisciculturists	5.000	2.649
" 015	Reservoir Fisheries	3.000	0.960
" 016	Storage, Processing and Marketing	1.500	1.332
" 017	Curing and drying	3.000	..
" 018	Small Boat Mechanisation	10.000	13.654
" 020	Assistance to Traditional Fisheries	..	0.365
" 021	Repair and refitting facilities	5.000	1.700
" 022	Assistance to fishermen co-operatives	7.000	32.410
" 023	Housing and Colonisation	20.372	21.145
" 024	Guide Lights	2.000	0.167
" 025	Assistance to Kerala Fisheries Corporation	40.001	133.142
" 026	Assistance to Kerala Fishermen's Welfare Corporation	65.000	72.000
" 027	Land acquisition charges for Cochin Fishing Harbour	0.001	..
" 028	Infrastructure Facilities in two selected Villages	10.000	4.576
" 029	Community Amenities and Dispensaries	5.000	0.262
" 030	Harbour Engineering Wing	1.000	0.232
" 031	Roads	25.000	18.509
" 032	A. R. C. Schemes	7.000	4.704
" 035	Diversification of fishing accessories and gear	45.000	..
" 036	Transfer of Fishermen Relief Fund	5.000	..
" 037	Development of Vizhinjam—Kovalam	47.000	24.831
" 038	Development of Neendakara Fishing Harbour	5.000	..
" CSS 007	Fish Farmer's Development Agency in Palghat District (State Share)	..	..
Total—A		392.482	359.372
CENTRALLY SPONSORED SCHEMES			
FSH CS 040	Fishing Harbours and landing centres	0.708	0.017
" 041	Infrastructure Facilities in two selected Villages	5.000	..
" 042	Strengthening of Organisation for Fisheries Extension work	0.001	..
Sub Total—B		5.709	0.017
CENTRAL SECTOR SCHEMES			
FSH CSS 007	Fish Farmer's Development Agency in Palehat, Trichur & Quilon Districts	4.002	1.123
	Brackish Water Fish Farming in Thev.	4.682	1.713
Sub Total—C		8.684	2.836
Grand Total		406.875	362.225

\* Expenditure according to Plan Progress Report

## EXPENDITURE STATEMENT OF PLAN SCHEMES FOR THE YEAR 1979-80

Sl. No.	Name of Schemes	Provision for 1979-80	Expenditure for 1979-80 *
(1)	(2)	(3)	(4)
<b>STATE PLAN SCHEMES</b>			
1	Strengthening of Administration	3.000	1.588
2	Planning and Statistical Cell	3.000	1.273
3	Extension	2.500	2.649
4	Development of Small water areas	1.000	0.296
5	Development of Tuna fishing	10.000	..
6	Fish Seed farms	16.500	8.040
7	Brackish Water Fish Farming	22.000	3.858
8	Patrolling in Back Waters	2.000	1.954
9	Off-shore fishing purse-seiners	15.000	0.010
10	Market Survey and Research	1.000	0.600
11	Survey of Inland and Brackish Water Fisheries	2.000	0.050
12	Development of Fishermen Training Centres	6.000	10.640
13	Subsidy to Private Pisciculturists	2.500	1.203
14	Inservice Course for Technical Personnel	3.000	0.013
15	Reservoir Fisheries	4.249	5.303
16	Mariculture in shallow protected sea	5.000	3.284
17	Storage, Processing and Marketing	2.000	1.688
18	Fish Boxes	1.250	..
19	Insulated Cabinets	2.000	..
20	Organisation of Regulated Markets	0.600	..
21	Large Fish Markets	10.000	..
22	Financial Assistance for marketing of Fish	5.000	..
23	Canning and Drying	3.000	..
24	Small Boat Mechanisation	23.000	19.001
25	Assistance to Traditional Fisheries—Supply of Catamarans and Canoes	20.000	20.000
26	Repair and Refitting Facilities	5.000	1.101
27	Assistance to Fishermen Co-operative Societies	19.400	17.560
28	Housing and Colonisation	5.000	3.788
29	Guide Lights	5.000	0.110
30	Assistance to Kerala Fisheries Corporation	40.000	56.000
31	Assistance to Kerala Fishermen's Welfare Corporation	20.000	20.000
32	Land acquisition charges for the rehabilitation of the displaced persons from the land acquired for Cochin Fishing Harbour	..	0.640
33	Infrastructure Facilities in two selected Villages	40.000	12.137
34	Fishermen Welfare Fund	30.000	30.000
35	Assistance to Kerala—Fishermen's Welfare Corporation towards subsidised Housing Scheme	..	83.000
36	Community Amenities and Dispensaries	8.000	2.083
37	Harbour Engineering	1.000	0.640
38	Roads	20.000	19.540
39	Development of Vizhinjam and Kovalam	1.000	46.032
40	Development of Neendakara Fishing Harbour	15.000	0.070
<b>50% STATE SHARE OF CENTRALLY SPONSORED SCHEMES</b>			
41	Fishing Harbours and landing Centres	1.390	0.006
42	Fish Farmer's Development Agency in Palghat District	1.030	0.730
43	Fish Farmer's Development Agency in Quilon and Trichur Districts	2.470	2.470
Sub Total—A		379.889	369.214
<b>CENTRALLY SPONSORED SCHEMES</b>			
1	Fishing Harbours and Landing Centres	1.390	0.006
2	Fish Farmer's Development Agency in Palghat District	1.030	0.730
3	Fish Farmer's Development Agency in Quilon and Trichur Districts	2.470	2.470
Sub Total—B		4.890	3.206
Grand Total		384.779	372.420

\* Expenditure according to Plan Progress Report

## 14.2 Plan Expenditure in Kerala—(1951-52 to 1979-80)

Particulars of plan	Plan Expenditure (Actuals)			Column (3) as a percentage of Col. (2)	Column (4) as a percentage of Col. (2)	Column (4) as a percentage of Col. (3)
	Total	Agriculture and Allied Services	Fisheries			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
First Plan (1951-56)	2589.28	244.82	2.74	9.46	0.11	1.12
Second Plan (1956-61)	8021.78	1328.11	64.62	16.56	0.81	4.87
Third Plan (1961-66)	18231.01	3557.67	335.05	19.51	1.84	9.42
Annual Plan (1966-67)	4493.46	1266.23	238.41	28.18	5.31	18.83
Annual Plan (1967-68)	4857.06	1239.49	252.94	25.52	5.21	20.41
Annual Plan (1968-69)	5086.75	1292.85	212.15	25.42	4.17	16.41
Fourth Plan (1969-74)	33335.00	4981.10	539.91	14.94	1.62	10.84
Fifth Plan (1974-78)	48561.70	7584.16	782.96	15.62	1.61	10.32
Annual Plan (1978-79)	19343.75	2786.70	279.69	14.41	1.45	10.04
Annual Plan (1979-80)	23526.06	3680.55	344.61	15.64	1.46	9.36
Total	168045.85	27961.68	3053.08	16.64	1.82	10.92

Source:—Plan Expenditure by State Planning Board.  
Expenditure according to accounts.

14.3 DRAFT SIXTH PLAN  
SCHEME-WISE OUTLAY—1980-85

Sl. No.	Name of Scheme	1980-85 Proposed outlay
(1)	(2)	(3)
<b>I. DIRECTION AND ADMINISTRATION</b>		
1	Strengthening of Administration	30.000
2	Planning and Statistical Cell	15.000
<b>II. EXTENSION</b>		
1	Extension	15.000
<b>III. FISH FARMS</b>		
1	Fish Seed Farms	150.000
2	Development of Small water areas	1.500
3	Subsidy to Pisciculturists/Composite Fish Culture	15.000
4	Brackish Water Fish Farming/Prawn Culture	30.000
5	Survey of Inland and Brackish Water Fisheries	1.750
6	Fish Farmer's Development Agency in Palghat, Trichur and Quilon	15.000
<b>IV. HATCHERIES</b>		
1	Fish Seed Production including Prawn Hatchery	10.000
<b>V. RESEARCH</b>		
1	Assistance to Kerala Agriculture University for Inland Fisheries Research including setting up of a Fishery College	5.000
2	Establishment of Market Research Unit	5.000
<b>VI. EDUCATION AND TRAINING</b>		
1	Development of Fishermen Training Centres and Establishment of Regional Fisheries Technical High Schools	70.000
2	Training in Pisciculturists	2.000
3	Inservice Course for Technical Personnel	5.000



(1)	(2)	(3)
<b>VII. INLAND FISHERIES</b>		
1	Development of Reservoir Fisheries	20.000
2	Patrolling in Backwaters	5.000
3	Mariculture in shallow protected sea	40.000
<b>VIII. FISHING HARBOUR AND LANDING FACILITIES</b>		
1	Engineering Wing	2.500
2	Development of Vizhinjam Fishing Harbour	307.000
3	Development of Neendakara Fishing Harbour	150.000
4	Fisheries Terminal Organisation for management of Fishing Harbours	5.000
5	Rehabilitation of Fishermen, Vizhinjam	250.000
6	Development of Fish Landing Centres	100.000
<b>IX. OFF-SHORE FISHING AND DEEP SEA FISHING</b>		
1	Off-shore fishing—Purse-seiners (13.4 m.)	80.000
2	Deep Sea Fishing and Tuna Fishing—Super seiners	100.000
<b>X. PROCESSING, PRESERVATION AND MARKETING</b>		
1	Storage, Processing and Marketing including Cold Chain	30.000
2	Financial assistance for marketing of fish	..
3	Infrastructure Facilities in Fishing Villages	35.000
4	Organisation of Regulated Markets	..
5	Large Fish Markets	..
<b>XI. MECHANISATION AND IMPROVEMENT OF FISHING CRAFTS</b>		
1	Small Boat Mechanisation	70.000
<b>XII. OTHERS</b>		
1	Assistance to Traditional Fisheries—Supply of Catamarans and Canoes	..
2	Supply of Engines to Traditional Crafts and distribution of Fibre Glass Canoes with engines	25.000
3	Repair and refitting facilities	2.500
4	Development of Link Roads	100.000
5	Housing and Colonisation including subsidised housing schemes	..
6	Community Amenities including dispensaries	30.000
7	Assistance to Fishermen Co-operative Societies	..
8	Organisation of Village Societies	..
9	Fishermen Welfare Fund including Relief Measures	..
10	Subsidiary Industries	..
11	Assistance to Kerala Fisheries Corporation	35.000
12	Guide Lights	10.000
13	Assistance to Kerala Fishermen's Welfare Corporation	40.000
14	Land acquisition charges for the rehabilitation of the displaced from the land acquired for the Cochin Fishing Harbour Project	0.500
15	Organisation of Kerala Inland Fisheries Corporation	20.000
16	Establishment of Aquarium	5.000
17	Fishermen's Insurance Scheme	..
18	Fishermen's Debt Relief Assistance	..
<b>Total</b>		<b>1446.000</b>

## 14.4 Sixth Five Year Plan 1980-85

## DEVELOPMENT SCHEMES/PROJECTS—OUTLAYS

State: KERALA

(Rs. in lakhs)

Sl. No.	Name of the Scheme/Project	1980-81 Approved outlay	1981-82 Proposed outlay	1980-85 Approved outlay
(1)	(2)	(3)	(4)	(5)
1	Direction and Administration	2.87	3.00	20.00
2	Extension	2.08	3.00	10.00
3	Fish Farms	27.62	24.00	111.50
4	Hatcheries	..	3.00	10.00
5	Research	2.50	2.50	10.00
6	Education and Training	9.40	21.50	57.00
7	Inland Fisheries	16.22	16.50	66.50
8	Fishing Harbours and Landing Facilities	99.50	107.00	549.50
9	Off-shore Fisheries	8.00	5.00	40.00
10	Deep Sea Fisheries	2.00	5.00	10.00
11	Processing, Preservation and Marketing	35.46	69.00	247.00
12	Mechanisation and improvement of Fishing Crafts	34.00	25.00	100.00
13	Others	223.35	178.60	768.50
Total		463.00	463.10	2000.00

## XV. FISHING VILLAGES

## 15.1 List of Fishing Villages (Marine)

## TRIVANDRUM DISTRICT

1. Kollengode
2. Paruthiyoor
3. Poovar
4. Karimkulam
5. Kochuthura
6. Puthiyathura (Chinnamarthandan thura)
7. Pallam
8. Pulluvila
9. Adimalathura
10. Vizhinjam (Christian fishing village)
11. Vizhinjam (Muslim fishing village)
12. Kovalam
13. Panathura
14. Poonthura
15. Bheemapally
16. Cheriathura
17. Valiathura
18. Kochuthope
19. Valiathope
20. Sanghumughom
21. Kannamthura
22. Vettukad
23. Kochuveli
24. Valiaveli
25. Pallithura
26. Kochuthura
27. Vettuthura
28. St. Andrewsthura
29. Puthenthope
30. Vettiyathura
31. Alillathura
32. Puthukurichi
33. Perumathura
34. Thazhampally
35. Sinkarathope

36. Poothura
37. Anjengo
38. Mampally
39. Kayikkara
40. Nedunganda
41. Arivalam
42. Vettoor
43. Chilakkoor
44. Kurakkari
45. Odayam
46. Edava
47. Kappil

## QUILON DISTRICT

1. Paravoor South
2. Paravoor North
3. Mayyanad
4. Thanny
5. Eravipuram South
6. Eravipuram North
7. Pallithottam
8. Quilon Port
9. Vaddy
10. Thangasserry
11. Kannimel
12. Sakthikulangara
13. Neendakara
14. Puthenthura
15. Karithura
16. Kovilthottam
17. Ponmana
18. Vellanat huruthu
19. Pandarathuruthu
20. Cheriazheekal
21. Alappad
22. Kuzhithura
23. Parayakadavu
24. Srayikkadu
25. Azheekkal South
26. Azheekkal North

## ALLEPPEY DISTRICT

1. Valiazheekal
2. Tharayilkadavu
3. Kallikkadu
4. Arattupuzha
5. Thrikunnapuzha
6. Thottappally
7. Purakkadu
8. Ambalapuzha
9. Neerkunnam
10. Vandanam
11. Punnapra
12. Vadakkal
13. Kanjirachira
14. Thumboly
15. Kattoor
16. Chettikkadu
17. Pollathai
18. Chethi
19. Chennaveli
20. Arthinkal
21. Thaikkal
22. Ottamasserry
23. Vettakkal
24. Azheekal
25. West Manakoodam
26. Pallithode South
27. Pallithode North

## ERNAKULAM DISTRICT

1. Chellanam
2. Maruvakkad
3. Kandakadavu
4. Kannamally
5. Cheriakadavu
6. Sandi
7. Mannassery
8. Fort Cochin
9. Octhanthuruthu
10. Elankunnapuzha
11. Malippuram
12. Narakkal
13. Nayarambalam
14. Pazhangad
15. Edavanakad
16. Kuzhippally
17. Ayyampally
18. Cherai
19. Pallippuram
20. Munambam

## TRICHUR DISTRICT

1. Azhikode
2. Eriyad
3. Panangad
4. Padinjare Vemballoor
5. Koolimuttom
6. Perinjanam
7. Chandrapini
8. Kaipamangalam
9. Pallippuram
10. Nattika
11. Talikulam
12. Vadanappally
13. Engadiyoor
14. Bhangad
15. Manathala
16. Kadapuram
17. Edakkazhiyoor
18. Mannalankunnu

## MALAPPURAM DISTRICT

1. Palapetty
2. Veliangode
3. Puthuponnani
4. Ponnani Nagar
5. Azheekal
6. Thekke Koottai
7. Vadakke Koottai
8. Unniakadappuram

9. Palavalappil
10. Vadi
11. Paravanna
12. Vakkad
13. Thevarkadappuram
14. Valakadappuram
15. Puthiangadi
16. Cheerankadappuram
17. Anjudikadappuram
18. Puthiakadappuram
19. Elarankadappuram
20. Pandarakadappuram
21. Ormankadappuram
22. Edakkadappuram (South)
23. Edakkadappuram (North)
24. Arayankadappuram
25. Parappanangadi
26. Ariyallur Beach
27. Vallikunnu Beach
28. Kadalundi Beach

## KOZHIKODE DISTRICT

1. Chaliyam
2. Beypore
3. Naduvattom
4. Chakkumkadavu
5. Kappakkal
6. Chamundivalappu
7. Thekkekadappuram
8. Pallikkandi (near South Kozhikode)
9. Nainanvalappu
10. Arakkal Theruvu
11. Thodiyl
12. Vellayil
13. Puthiakadavu
14. Thoppayil
15. Kamburam
16. West Hill
17. Puthiangadi
18. Pallikkandi (near Puthiangadi)
19. Mukavankandi
20. Puthiappa
21. Elathur
22. Kannakadavu
23. Kappad
24. Kadalore (Chemancherri)
25. Ezhukudikal
26. Edakkulam Beach (near Quilandy)
27. Cherimangad
28. Valiamangad
29. Virrunnukandi
30. Quilandy
31. Kollam
32. Moodadi
33. Vanmukam Kadaloor
34. Thikkodi
35. Meladi
36. Irungal
37. Irungal- Kottakkal
38. Badagara
39. Chorode
40. Muttungal
41. Madappalli
42. Uralungal
43. Onchiyam
44. Madakkara
45. Vellikulangara
46. Chombola
47. Azhiyoor
48. Thekkumkad

## CANNANORE DISTRICT

1. Kuruchiyyil
2. Thalayi
3. Chaliigopalapettah
4. Tellicherry
5. Pallisserry
6. Koduvalli
7. Dharmadom
8. Edakkad
9. Eazharakadappuram
10. Thayyil
11. Cannanore City

12. Ayyikkara
13. Azhikode Kadappuram
14. Mattolkadappuram
15. Puthiyangadi Kadappuram
16. Palacode Kadappuram
17. Kavayi Kadappuram
18. Trikkaripur Kadappuram
19. Kannuveedukadappuram
20. Udinoor Kadappuram
21. Thayyilkadappuram
22. Padnakadappuram
23. Kadangode
24. Thaikadappuram
25. Poonjar Kadappuram
26. Puthiyavalappu
27. Hosdurg Kadappuram
28. Bellakadappuram
29. Manikoth
30. Ajanur
31. Chithari
32. Pallikkara
33. Puthiyakadappuram
34. Bekal
35. Kottikulam
36. Kizhur
37. Kazhava
38. Adakathbail
39. Kavugoli
40. Kudlur (Koodal)
41. Mogaral
42. Koipady
43. Kumbala
44. Arikady
45. Sheeriya
46. Uppala
47. Bengara Manjeswar
48. Manjeswar

#### 15.2 List of Fishing Villages(Inland)

1. Vellayani
2. Veli
3. Perumathura
4. Murukkumpuzha
5. Katinamkulam
6. Chirayinkil
7. Ajengo
8. Akathumuri
9. Poongode
10. Kandachira
11. Mangad
12. Kadavoor
13. Aravila
14. Kureepuzha
15. Mukkad
16. Manalikadavu
17. Prakulam
18. Mundakkal
19. Perumon
20. Chemmakadavu
21. Kanjirakode
22. Padappakara
23. Muttom
24. Kumpalam
25. Koduvila
26. Sinkarapally
27. Neendakara
28. Chavara South
29. Chavara North
30. Koyivila
31. Arinalloor
32. Pattakadavu
33. Prayar
34. Ayiramthengu
35. Azheekal
36. Valiyazheekal
37. Puthupally
38. Kayamkulam
39. Kadalloor South
40. Keerikadu
41. Perampally
42. Muthukulam
43. Vempuzha
44. Asthamkotta
45. Arichal
46. Cherikol
47. Ulunthi
48. Ennakadu
49. Chennithala
50. Parumala
51. Pavookkara
52. Noornade
53. Pandanade
54. Maramal
55. Vattadi
56. Neerettupuram
57. Kattoda
58. Chandakadavu
59. Thukulasserry
60. Market Ward (Alleppey)
61. Paippadu
62. Poovar
63. Sherthalai
64. Vayalar East
65. Thuravoor North
66. Thuravoor South
67. Aroor
68. Thannirmukkom South
69. Thannirmukkom North
70. Kothamangalam
71. Pallippuram
72. Thaikattussery
73. Panavally
74. Mattathil bhagom
75. Munambam
76. Ezhikkara
77. Vadakekkara
78. Cherai
79. Mattancherry
80. Rameswaram
81. Kumbalam
82. Mulavukadu
83. Thekkumbhagom
84. Poonithura
85. Maradu
86. Nadama
87. Elamkulam
88. Ernakulam
89. Cheranallor
90. Kadamakudy
91. Cherai
92. Ayyampally
93. Cheru Vypeen
94. Nedungad
95. Narakkal
96. Palluruthy
97. Kumbalangy
98. Vaniampara
99. Ariyoor
100. Kadavanad
101. Gomukham
102. Purathur
103. Kuthirapuzha
104. Palathingal
105. Kadalundi River
106. Vallikunnu River
107. Karuvanthuruthy
108. Cheruvannur
109. Vengalam
110. Velloor
111. Vengalam
112. Thorayi
113. Ullarkadavu
114. Kottakal
115. Koyangara in Trikarapur
116. Pilikode
117. Maniyad
118. Kaithakad in Cheruvathur Village.
119. Kadankol
120. Parathennad
121. Orkulam Porathepalla
122. Kanhimoola Kadappuram (Nileswar I Village)
123. Kunhimangalam
124. Adut in Kunhimangalam
125. Thazhathy vayal in Kokkanseri
126. Manickery in Payyannur
127. Ancherry in Velloor
128. Kanaji in Korom
129. Karivalloor
130. Cherucherry in Kadanapally

131. Pattuvam
132. Mangalassery
133. Muthukada
134. Mukkundu in Pariyadam
135. Thalor
136. Kuttiyari
137. Irringal doesm in Pariyaram
138. Ezhom
139. Koottil in Ezhom
140. Kanmool in Morazha
141. Punnacherry in Cherukundu
142. Vadikkal in Palayangadi
143. Madai
144. Mattil
145. Narath
146. Kannadi Paramba
147. Attazhakunu
148. Kattampalli
149. Azhikode

150. Kappakadavu
151. Poyithumkadavu
152. Mattool
153. Madakkara
154. Thekkumpad
155. Pappincherry
156. Keezhara in Kannapuram
157. Cheruma Village
158. Mundalloor Makkari
159. Kottam in Makkari
160. Keelaloor in Pathiringad
161. Cherikkal in Pinarayi
162. Pinarayi
163. Parapparan in Pinarayi
164. Melloor in Darmadam
165. Koduvalli
166. Dharmadom
167. Kallayi

## XVI. FISH MARKETS

### 16.1 Important Fish Markets in the State

<i>Name of Market</i>	<i>Taluk</i>	<i>District</i>
(1)	(2)	(3)
<b>Fresh Fish</b>		
1. Nedumangad	Nedumangad	Trivandrum
2. Palayam, Trivandrum	Trivandrum	"
3. Quilon	Quilon	Quilon
4. Kundara	Kottarakkara	"
5. Kottarakkara	"	"
6. Punaloor	Pathanapuram	"
7. Kayamkulam	Karthigapally	Alleppey
8. Purakkad	Ambalapuzha	"
9. Alleppey	"	"
10. Sherthalai	Sherthalai	"
11. Kottayam	Kottayam	Kottayam
12. Palai	Meenachil	"
13. Kanjirappally	Kanjirappally	"
14. Mundakayam	"	"
15. Peermade	Peermade	Idukki
16. Yelappara	"	"
17. Munnar	Devikulam	"
18. Muvattupuzha	Muvattupuzha	Ernakulam
19. Alwaye	Alwaye	"
20. Mattancherry	Cochin	"
21. Ernakulam	Kanayannur	"
22. Chalakudy	Mukundapuram	Trichur
23. Trichur	Trichur	"
24. Kunnankulam	"	"
25. Kadappuram	Chowghat	"
26. Chowghat	"	"
27. Ponnani	Ponnani	Malappuram
28. Olavakode	Palghat	Palghat
29. Palghat	"	"
30. Ottappalam	Ottappalam	"
31. Shoranur	"	"



(1)	(2)	(3)
32. Chittur	Chittur	Palghat
33. Sholayar	"	"
34. Angadipuram	Perinthalmanna	Malappuram
35. Paravanna	Tirur	"
36. Kuttayi	"	"
37. Tirur	"	"
38. Tanur	"	"
39. Vallikunnu	"	"
40. Parappanangadi	"	"
41. Kadalundi	"	"
42. Feroke	"	"
43. Beypore	Kozhikode	Kozhikode
44. Calicut	"	"
45. Quilandy	Quilandy	"
46. Kuttiyadi	"	"
47. Badagara	Badagara	"
48. Ernad	Ernad	Malappuram
49. Nilambur	"	"
50. Vythiri	South Wynad	Kozhikode
51. Mananthody	North Wynad	Cannanore
52. Tellicherry	Tellicherry	"
53. Mattannur	"	"
54. Cannanore	Cannanore	"
55. Madai	"	"
56. Hosdurg	Hosdurg	"
57. Kasargode	Kasargode	"
58. Manjeswar	"	"
<b>Dried/Salted fish</b>		
1. Parakode	Kunnathur	Quilon
2. Changanacherry	Changanacherry	Kottayam
3. Athirampuzha	Kottayam	"
4. Alwaye	Alwaye	Ernakulam
5. Vaniamkulam	Ottappalam	Palghat

## XVII. KERALA—POPULATION AND AREA

## 17.1 District-wise Distribution of Area, Population, etc., of Kerala (1971)

District	Area in sq. km.	Persons	Population in lakhs		Density per sq. km.	Sex Ratio	% of Urban Population
			Male	Female			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	2192	21.99	10.95	11.04	1003	1007	26.0
Quilon	4623	24.13	12.06	12.07	522	1001	7.87
Alleppey	1884	21.26	10.48	10.78	1128	1028	16.92
Kottayam	2196	15.39	7.73	7.66	701	991	13.56
Idukki	5087	7.65	3.95	3.70	150	937	3.30
Ernakulam	2377	21.64	10.89	10.75	910	988	29.39
Trichur	3032	21.29	10.23	11.06	702	1081	11.72
Palghat	4400	16.85	8.19	8.66	383	1056	12.70
Malappuram	3638	18.56	9.09	9.47	510	1041	6.73
Kozhikode	3729	21.06	10.58	10.48	565	991	26.66
Cannanore	5706	23.65	11.72	11.93	415	1017	13.74
State	38864	213.47	105.87	107.60	549	1016	16.24

Source: Director of Census Operation, Kerala & Directorate of Economics & Statistics.

## 17.2. District-wise Population of Kerala (Estimated) (1971-1981)

(Population in lakhs)

District	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Trivandrum	21.99	22.39	22.88	23.33	23.83	24.33	24.77	25.18	25.59	25.97	26.36
Quilon	24.13	24.52	25.04	25.47	25.99	26.47	26.90	27.31	27.71	28.08	28.45
Alleppey	21.26	21.50	21.84	22.10	22.43	22.74	22.98	23.21	23.44	23.63	23.81
Kottayam	15.39	15.56	15.79	15.96	16.20	16.43	16.60	16.75	16.89	17.03	17.16
Idukki	7.65	7.82	8.03	8.22	8.44	8.64	8.84	9.03	9.20	9.39	9.56
Ernakulam	21.64	22.04	22.57	23.03	23.57	24.09	24.53	24.98	25.42	25.84	26.26
Trichur	21.29	21.67	22.17	23.28	23.80	24.31	24.75	25.15	25.56	25.95	26.33
Palghat	16.85	17.11	17.46	17.76	18.10	18.42	18.70	18.99	19.24	19.49	19.71
Malappuram	18.56	19.02	19.54	20.06	20.62	21.17	21.65	22.16	22.64	23.13	23.60
Kozhikode	21.06	21.54	22.15	22.69	23.29	23.90	24.46	24.99	25.52	26.04	26.57
Cannanore	23.65	24.19	24.88	25.49	26.18	26.87	27.48	28.10	28.69	29.29	29.86
State	213.47	217.36	222.35	227.39	232.45	237.37	241.66	245.84	249.90	253.84	257.67

Source: Directorates of Economic & Statistics.  
43/3530/MC.

## 17.3. District-wise Area and Population of Kerala (1971) Distributed by Natural region

District	Area (sq. km.)			Population			Density of population		
	Low land	Midland	High land	Low Land	Midland	High Land	Low Land	Midland	High Land
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum	114.0	1497.7	580.3	210463	1912204	75939	1846	1277	131
Quilon	366.6	1401.1	2855.3	731514	1224696	456611	1995	874	160
Alleppey	1241.8	642.2	..	1474691	651031	..	1188	1014	..
Kottayam	398.4	1287.8	1134.6	303054	1048350	187626	76	814	165
Idukki	..	231.4	4357.8	..	98874	666734	..	..	153
Ernakulam	577.5	1540.2	132.3	1121553	1042121	..	1942	677	..
Trichur	465.5	1546.9	1019.6	638810	1404493	85494	1372	908	84
Palghat	..	1562.6	2837.4	..	954798	730544	..	611	257
Malappuram	103.4	2842.7	691.9	157068	1595475	103819	1519	561	150
Kozhikode	362.8	1344.7	2021.5	460997	1299535	345717	1271	966	171
Cannanore	349.3	2333.9	3022.8	414530	1389938	560696	1187	596	185
State	3979.3	16231.2	18653.5	5512680	12621515	3213180	1385	778	172

Source: 1971 Census Reports and Statistical Hand Book of Kerala 1979 by D. E. S.

## 17.4. Decennial Variation in Population of Kerala

Year	Population (in lakhs)			Percentage decennial Variation	Population per sq.km.
	Persons	Male	Female		
(1)	(2)	(3)	(4)	(5)	(6)
1901	63.96	31.91	32.05	..	163
1911	71.48	35.60	35.88	+11.75	181
1921	78.02	38.79	39.23	+ 9.16	201
1931	95.07	47.03	48.04	+21.85	245
1941	110.32	54.44	55.88	+16.04	284
1951	135.49	66.82	68.67	+22.82	349
1961	169.04	83.62	85.42	+24.76	435
1971	213.47	105.88	107.59	+26.29	549

Source: 1971 Census Report, Part 11 A and Statistical Hand Book of Kerala 1979 of Directorate of Economics and Statistics.

## 17.5 District-wise Decennial Variation in Population (in lakhs)

Districts	1901	1911	1921	1931	1941	1951	1961	1971
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	4.84	5.69	6.66	8.57	10.15	13.28	17.45	21.99
Quilon	5.25	6.03	7.15	9.14	11.46	14.78	19.47	24.13
Alleppey	6.66	7.65	9.07	11.27	12.70	15.17	18.06	21.26
Kottayam	4.72	5.57	6.46	8.85	10.78	13.22	13.21	15.39
Idukki*	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	5.90	7.65
Ernakulam	6.72	7.66	8.38	10.60	12.81	15.36	16.82	21.64
Trichur	6.83	7.70	8.14	9.94	11.55	14.03	16.88	21.29
Palghat	7.64	8.20	8.54	9.41	10.25	12.14	13.70	16.85
Malappuram	6.82	7.48	7.64	8.75	9.77	11.50	13.70	18.56
Kozhikode	6.59	7.08	7.33	8.56	9.61	12.26	15.88	21.06
Cannanore	7.87	8.42	8.65	9.97	11.23	13.75	17.80	23.65
State	63.96	71.48	78.02	95.07	110.32	135.49	169.04	213.47

Source: Census Reports & Statistical Hand book of Kerala 1979 by D. E. S.

\*Idukki: District was formed on 26th January 1972 and population of only 1961 and 1971 are separately available.

## 17.6 Estimation of population of Kerala according to age group (1971)

Age Group	Percentage of population 1971
0—14	40.26
15—19	10.95
20—24	9.32
25—29	6.50
30—39	11.66
40—49	9.16
50—59	5.92
60 and above and age not stated	6.23
Total	100.00

Source: Registrar General, India and Statistical Hand book of Kerala 1979 by Director of Economics and Statistics.

## 17.7 Workers and Non-workers (1971 census) (in lakhs)

Sl.No.	Category	Persons	Male	Female	Percentage of population in the category	
					Total	Urban
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Cultivators	11.06	10.39	0.67	5.17	1.09
2.	Agricultural Labourers	19.08	11.96	7.12	8.94	2.69
3.	Livestock, Forestry etc.	4.34	3.56	0.78	2.04	1.33
4.	Mining & quarrying	0.30	0.27	0.03	0.14	0.09
5.	Manufacturing, processing & repairs					
	(a) Household industry	2.66	1.48	1.18	1.25	0.99
	(b) Other than household industry	7.12	5.33	1.79	3.34	5.07
6.	Construction	1.07	1.03	0.04	0.50	0.66
7.	Trade and Commerce	5.66	5.37	0.29	2.65	5.01
8.	Transport, storage & communication	2.43	2.28	0.15	1.13	2.66
9.	Other services	8.44	5.97	2.47	3.95	7.40
10.	Total workers (1 to 9)	62.16	47.64	14.52	29.12	26.99
11.	Non-workers	151.31	58.23	93.08	70.88	73.01
12.	Total population (10+11)	213.47	105.87	107.60	100.00	100.00

Source: 1971 Census Report Part II A and Statistical Hand book of Kerala 1979.

## 17.8 Number of Fishing Villages, Fishermen and Fishing craft in Kerala

Fishing Villages	( Marine 262 Inland 167 )
Fishermen population	778882
Fishermen engaged in fishing:	
(a) Marine	121959
(b) Inland	39308
Fishing Crafts:	
(a) Mechanised	2984
(b) Non-mechanised	34112

Source: Report on 12th Quinquennial Livestock census 1977 and Socio-economic survey of fishermen 1979 conducted by the Fisheries Department.

## 17.9 District-wise fishing Villages, fishermen Population etc. (Marine) in Kerala 1979

Sl.No.	District	No. of Fishing Villages Marine	Total No. of fishermen households	Total No. of fishermen Population
(1)	(2)	(3)	(4)	(5)
1	Trivandrum	47	22205	127384
2	Quilon	26	11212	71603
3	Alleppey	27	14120	87027
4	Ernakulam	20	8373	55380
5	Trichur	18	7344	53362
6	Malappuram	28	7087	57998
7	Kozhikode	48	10146	77044
8	Cannanore	48	9971	72669
	Total	262	90458	602467



## 17.10 District-wise distribution of fishing villages (Marine) by number of households

District	Number of fishing villages with households								Total
	Less than 50	50-99	100-249	250-499	500-999	1000-1499	1500-1999	2000 & above	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum	3	4	8	18	9	3	1	1	47
Quilon	..	1	4	15	6	..	..	..	26
Alleppey	..	2	4	11	8	2	..	..	27
Ernakulam	..	..	3	11	6	..	..	..	20
Trichur	..	1	4	8	5	..	..	..	18
Malappuram	..	..	14	12	1	1	..	..	28
Kozhikode	1	6	27	12	2	..	..	..	48
Cannanore	3	11	19	11	4	..	..	..	48
State Total	7	25	83	98	41	6	1	1	262

## 17.11 District-wise distribution of total fishermen population—1979

Sl. No.	District	Total fishermen population		
		Male	Female	Total
(1)	(2)	(3)	(4)	(5)
1.	Trivandrum	64808	63514	128322
2.	Quilon	50552	47666	98218
3.	Kottayam	9952	9491	19443
4.	Alleppey	69373	66927	136300
5.	Ernakulam	53626	51957	105583
6.	Trichur	34639	34161	68800
7.	Malappuram	30798	30465	61263
8.	Kozhikode	44419	42618	87037
9.	Cannanore	37598	36318	73916
Total		395765	383117	778882

## 17.12 District-wise distribution of fishermen households—1979

Sl. No.	District	No. of households		
		Marine	Inland	Total
(1)	(2)	(3)	(4)	(5)
1.	Trivandrum	22205	150	22355
2.	Quilon	11212	4405	15617
3.	Kottayam	..	3244	3244
4.	Alleppey	14120	8263	22383
5.	Ernakulam	8373	7801	16174
6.	Trichur	7344	2322	9666
7.	Malappuram	7087	465	7552
8.	Kozhikode	10146	1498	11644
9.	Cannanore	9971	195	10166
Total		90458	28343	118801

## 17.13 District-wise distribution of fishermen population—1979

Sl. No.	District	Marine			Inland			Total population
		Male	Female	Total	Male	Female	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Trivandrum	64339	63045	127384	469	469	938	128322
2.	Quilon	36873	34730	71603	13679	12936	26615	98218
3.	Kottayam	..	..	..	9952	9491	19443	19443
4.	Alleppey	44156	42871	87027	25217	24056	49273	136300
5.	Ernakulam	28049	27331	55380	25577	24626	50203	105583
6.	Trichur	26771	26591	53362	7868	7570	15438	68800
7.	Malappuram	29128	28870	57998	1670	1595	3265	61263
8.	Kozhikode	39316	37728	77044	5103	4890	9993	87037
9.	Cannanore	36949	35720	72669	649	598	1247	73916
Total		305581	296886	602467	90184	86231	176415	778882

## 17.14 District-wise distribution of active fishermen population—1979

Sl. No.	District	Marine			Inland			Total
		Male	Female	Total	Male	Female	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Trivandrum	25081	..	25081	299	8	307	25388
2.	Quilon	12821	..	12821	5564	243	5807	18628
3.	Kottayam	..	..	..	4254	124	4378	4378
4.	Alleppey	19743	..	19743	10326	1802	12128	31871
5.	Ernakulam	11635	..	11635	10997	474	11471	23106
6.	Trichur	8840	..	8840	3554	145	3699	12539
7.	Malappuram	12432	..	12432	575	39	614	13046
8.	Kozhikode	16367	..	16367	621	3	624	16991
9.	Cannanore	15040	..	15040	280	..	280	15320
Total		121959	..	121959	36470	2838	39308	161267

## 17.15 Distribution of fishermen households by their annual income

Sl. No.	District	Total No. of fishermen households	No. of households with annual income					
			Rs. 0-1000		Rs. 1001 to 3000		Above Rs. 3000	
			Number	Percentage	Number	Percentage	Number	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Trivandrum	22355	13470	60.25	7972	35.66	913	4.09
2.	Quilon	15617	6889	44.11	7850	50.27	878	5.62
3.	Alleppey	22383	12574	56.18	9595	42.87	214	0.96
4.	Kottayam	3244	1518	46.79	1658	51.11	68	2.10
5.	Ernakulam	16174	5544	34.28	9933	61.41	697	4.31
6.	Trichur	9666	4529	46.85	4960	51.31	177	1.83
7.	Malappuram	7552	4416	58.47	3034	40.18	102	1.35
8.	Kozhikode	11644	6938	59.58	4387	37.68	319	2.79
9.	Cannanore	10166	4098	40.31	5678	55.85	390	3.84
Total		118801	59976	50.48	55067	46.35	3758	3.16

## XVIII. STATE INCOME

## 18.1 Estimates of State Domestic Products by Industry of Origin in Kerala (at current prices)

Year	Net Domestic Product (Rs. in lakhs)						Per capita income	
	Agriculture and allied sectors	Mining and industries	Transport & Communication, Trade etc.	Banking, Insurance and Other Services	Total	Index (Base 60-61 = 100)	Rs.	Index (Base 60-61 = 100)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1960-61	24196	6585	5769	6672	43222	100	259	100
1965-66	39736	10286	10340	10707	71069	164	380	147
1970-71	67323	16321	20064	19296	123004	285	586	226
1971-72	62018	17791	21616	21541	122966	284	572	221
1972-73	74562	18871	25195	23534	142162	329	647	250
1973-74	101443	19172	28273	26778	175666	406	785	303
1974-75	110857	24619	34941	32765	203182	470	884	341
1975-76 (P)	108048	25592	40799	38985	213424	493.7	909	351
1976-77 (Q)	113535	29067	45786	53487	231875	536	968	374

Source: D.E.S.

P—Provisional. Q—Quick Estimate

## 18.2 Percentage Distribution of Net Domestic Product of Kerala (at current prices)

Sl. No.	Sector	1960-61	1965-66	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Agriculture and allied sectors	55.98	55.91	54.73	50.43	52.45	57.75	54.56	50.63	50.63
2.	Mining and Industry	15.23	14.47	13.27	14.47	13.27	10.91	12.12	11.99	11.99
3.	Transport & Communication, Trade etc.	13.35	14.55	16.31	17.58	17.72	16.10	17.20	19.12	19.12
4.	Banking, Insurance and other services	15.44	15.07	15.69	17.52	16.56	15.24	16.12	18.26	18.26
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: D.E.S.

## 18.3 Estimates of State Domestic Product by Industry of Origin in Kerala (at constant prices)

Year	Net domestic product (Rs. in lakhs)						Per capita income	
	Agriculture and allied sectors	Mining and Industries	Transport, Communication, Trade etc.	Banking, Insurance & Other Services	Total	Index (Base 60-61 = 100)	Rs.	Index (Base 60-61 = 100)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1960-61	24196	6585	5769	6672	43222	100	259	100
1965-66	24705	8711	7049	8365	48830	113	261	101
1970-71	31651	10659	9906	10188	62402	144	297	115
1971-72	32052	11979	10206	10759	64996	150	302	117
1972-73	32277	12548	10407	11205	66437	154	302	117
1973-74	32355	12637	10466	12115	67573	156	301	116
1974-75	33029	12593	10856	12199	68677	158	299	115
1975-76 (P)	32814	12962	11100	12891	69767	161	297	115
1976-77 (Q)	30893	13916	11086	13772	69667	161	291	112

Source: D.E.S.

P—Provisional. Q—Quick estimate.

## 18.4 Percentage Distribution of Net Domestic Product of Kerala (at constant prices)

Sl. No.	Sector	1960-61	1965-66	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Agriculture and allied sectors	55.98	50.59	50.72	49.32	48.58	47.88	48.80	47.03	44.34
2.	Mining and Industry	15.23	17.84	17.08	18.43	18.89	18.70	18.77	18.58	19.98
3.	Transport & Communication, Trade etc.	13.35	14.44	15.87	15.70	15.66	15.49	15.38	15.91	15.91
4.	Banking, Insurance and Other Services	15.44	17.13	16.33	16.55	16.87	17.93	18.05	18.48	19.77
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: D.E.S.

## 18.5 Net State Domestic Product at Factor cost by Industry of origin at current prices—Kerala

(Rs. in lakhs)

Industry	1960-61	1969-70	1974-75	1975-76	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Agriculture	23091	56278	98663	92945	99697	96887
2. Forestry and logging	477	1178	2176	3402	2808	4211
3. Fishing	475	2412	5619	6774	5917	7995
4. Mining	153	109	360	415	384	338
Sub Total—Primary	24196	59977	106818	103536	108806	109431
5. Manufacturing	5382	12592	27665	28422	28997	31941
(a) Registered	2677	8095	13864	14882	16031	16482
(b) Unregistered	2705	4497	13801	13540	12966	15459
6. Construction	983	2531	5504	7061	6635	8372
7. Electricity, Gas and Water Supply	220	939	2092	2317	3252	4612
(a) Electricity	207	900	2003	2217	3142	4492
(b) Water Supply	13	39	89	100	110	120
Sub Total—Secondary	6585	16062	35261	37800	38884	44925
8. Transport, Storage and Communication	1564	4739	10826	13303	15404	16562
(a) Railways	294	496	755	963	1119	1154
(b) Transport by other means and storage	1116	3516	8778	10842	12444	13347
(c) Communication	154	727	1293	1498	1841	2061
9. Trade, Hotels and Restaurants	4205	12843	18151	20720	23206	26291
Sub Total—Transport, Communication and Trade	5769	17582	28977	34023	38610	42853
10. Banking and Insurance	414	1334	4146	5207	5734	6233
11. Real Estate, ownership of dwelling and business services	1159	2461	3578	4263	4290	4565
Sub Total—Finance and Real Estate	1573	3795	7724	9470	10024	10798
12. Public Administration and Defence	1110	3256	7002	8101	9050	10795
13. Other Services	3989	10423	17162	20201	21691	21774
Sub Total—Community and Personal Services	5099	13679	24164	28302	30741	32569
14. Net domestic product at Factor cost	43222	111095	202944	213131	227065	240576
Population (1000 persons)	16714	20521	22991	23490	23951	24374
Per capita income Rs.	258.60	541.40	882.71	907.33	948.04	987.02

Source: D.E.S.

**18.6 Net State Domestic Products at Factor Cost by Industry of origin at constant prices  
(1970-71)—Kerala**

(Rs. in lakhs)

Industry	1960-61*	1969-70*	1974-75	1975-76	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Agriculture	23091	28473	63927	63237	60848	59016
2. Forestry and logging	477	883	1146	1406	1266	1218
3. Fishing	475	582	2989	2994	2031	2431
4. Mining	153	71	212	219	201	174
Sub Total—Primary	24196	30009	68274	67856	64346	62839
5. Manufacturing	5382	8970	16756	16413	16735	21472
(a) Registered	2677	6154	8273	8501	9179	12957
(b) Un-registered	2705	2816	8483	7912	7556	8515
6. Construction	983	1294	3969	4421	3928	4677
7. Electricity, Gas and Water Supply	220	451	1685	1850	2133	2455
(a) Electricity	207	429	1629	1791	2069	2387
(b) Water Supply	13	22	56	59	64	68
Sub Total Secondary	6585	10715	22410	22684	22796	28604
8. Transport, Storage and Communication	1564	2812	8017	8750	9168	9663
(a) Railways	294	383	652	729	779	797
(b) Transport by other means and storage	1116	1995	6300	6860	7248	7661
(c) Communications	154	434	1065	1161	1141	1205
9. Trade Hotels and Restaurants	425	6899	10258	10256	9740	9522
Sub Total—Transport, Communication and Trade	5769	9711	18275	19006	18908	19185
10. Banking and Insurance	414	700	2328	2630	2747	3048
11. Real Estate, Ownership of dwelling and Business services	1159	1468	2889	3059	3074	3212
Sub Total—Finance and Real Estate	1573	2168	5217	5689	5821	6260
12. Public Administration and Defence	1110	2405	5588	5938	6442	7211
13. Other Services	3989	4959	11039	11341	11555	11658
Sub Total—Community and Personal Services	5099	7362	16627	17279	17997	18869
14. Net domestic product at factor cost	43222	59965	130803	132514	129868	135757
Population (1000 persons)	16714	20521	22991	23490	23951	24374
Per capita income (Rs.)	258.60	292.20	568.93	564.13	542.22	556.97

\* At constant 1960-61 prices. Source: D E &amp; S

**18.7 State Domestic Product and per capita S.D.P. 1960-61 to 1977-78 (At current and constant prices)**

Year	State, Net Domestic product (Rupees lakhs)		Per capita State Domestic product (Rupees)	
	At current prices	At constant prices 1970-71	At current prices	At constant prices 1970-78
1	(2)	(3)	(4)	(5)
*1960-61	43222	43222	258.60	258.60
*1969-70	111095	59965	541.40	292.20
1974-75	202944	130803	882.71	568.93
1975-76	213131	132514	907.33	564.13
1976-77	227065	129868	948.04	542.22
1977-78	240576	135757	987.02	556.97

Details furnished are from the revised series from 1970-71.

\* At constant 1960-61 prices.

Source: D.E. and S.



**18.8 District Income at current prices for the years 1970-71 to 1977-78***(Rs. lakhs)*

<i>District</i>	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Kerala</b>	118336	121047	139726	174621	202944	213131	227065	240576
Trivandrum	11862	12737	14397	18410	21408	22740	23274	23523
Quilon	14752	15149	18777	23211	27342	28391	26338	25933
Alleppey	11371	11132	13101	16183	18376	19229	19790	20714
Kottayam	9533	9829	11337	15313	17991	17952	18103	18249
Idukki	4694	4695	5266	6613	8647	8991	10159	9120
Ernakulam	13833	14886	16329	18855	23685	24680	28730	31828
Trichur	11145	11288	12782	15349	17725	18808	20578	22819
Palghat	8892	9179	10859	12749	14414	15840	15443	17535
Malappuram	8428	8910	10014	11794	13015	14036	16941	17640
Kozhikode	11742	11150	12947	18162	19462	20954	22286	25269
Cannanore	12084	12092	13917	17982	20879	21510	25423	27946

**18.9 District-wise Per capita Income for the years from 1970-71 to 1977-78***Per capita Income*

<i>District</i>	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Kerala</b>	563.56	563.35	635.58	776.58	882.71	907.33	948.04	987.02
Trivandrum	548.66	575.55	636.47	798.35	908.27	943.96	948.41	942.81
Quilon	621.92	624.96	758.67	921.80	1063.89	1084.04	987.92	957.64
Alleppey	543.81	523.86	606.25	740.30	828.12	854.62	868.74	900.22
Kottayam	629.66	639.08	726.27	969.79	1123.03	1104.06	1100.49	1099.34
Idukki	622.55	606.59	663.22	814.41	1035.57	1051.58	1158.38	1018.99
Ernakulam	650.35	683.16	731.91	827.70	1016.09	1035.23	1181.82	1285.46
Trichur	532.23	526.98	583.12	666.48	752.97	782.04	838.89	915.32
Palghat	536.63	542.81	629.14	726.03	804.80	868.90	832.96	931.72
Malappuram	461.30	473.94	518.32	594.76	638.30	669.98	789.42	802.18
Kozhikode	566.43	523.72	591.19	809.36	844.70	886.00	919.39	1019.32
Cannanore	519.30	505.52	565.73	718.29	806.45	808.95	933.64	1003.09

Source: D.E.S.

## 18.10 Indices of Net Domestic Product—Kerala and India

Year	At current prices		At 1960-61 prices	
	Kerala	India	Kerala	India
(1)	(2)	(3)	(4)	(5)
1960-61	100	100	100	100
1961-62	108	106	101	104
1962-63	113	112	105	106
1963-64	120	128	107	112
1964-65	141	151	112	120
1965-66	164	156	113	114
1966-67	177	180	119	116
1967-68	213	213	127	126
1968-69	230	218	133	130
1969-70	257	242	138	137
1970-71	285	262	144	144
1971-72	284	277	150	146
1972-73	329	299	154	145
1973-74	406	372	156	149
1974-75	470	438	158	152
1975-76	494	454	161	165
1976-77	536	485	161	303

Source: D.E.S.

## 18.11 Estimate of per capita income of States in India (current prices)

Sl.No.	States	1960-61	1965-66	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Andhra Pradesh	275	387	585	628	654	840	1003	919
2.	Assam	315	399	528	538	610	641	811	850
3.	Bihar	215	332	402	415	480	575	687	661
4.	Gujarat	362	498	843	809	740	1080	1038	1195
5.	Haryana	327	450	845	928	989	1174	1217	1296
6.	Jammu & Kashmir	269	317	524	572	601	785	861	883
7.	Karnataka	286	386	530	540	587	704	784	785
8.	Kerala	259	380	586	572	646	785	861	909
9.	Madhya Pradesh	260	305	490	535	578	734	830	793
10.	Maharashtra	409	534	803	836	861	1091	1271	1330
11.	Orissa	217	329	493	487	584	701	707	785
12.	Punjab	347	532	986	1035	1125	1393	1482	1575
13.	Rajasthan	284	373	623	559	579	780	819	894
14.	Tamil Nadu	334	403	579	640	664	810	814	889
15.	Uttar Pradesh	252	373	504	620	634	707	817	781
16.	West Bengal	390	532	742	797	787	954	1041	1062
	All India per capita net domestic product	307	429	642	662	707	862	995	1008

Source: Kerala Budget in brief 1979-80

## 18.12 Estimates of per capita income of States of India at constant prices

(In Rs.)

Sl.No.	States	Base year	1960-61	1965-66	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Andhra Pradesh	1960-61	275	276	310	314	287	325	330	330
2.	Assam	1948-49	251	265	270	271	284	286	291	298
3.	Bihar	1960-61	215	221	..	..	..	..	..	..
4.	Gujarat	1960-61	362	375	439	419	329	393	328	409
5.	Haryana	1960-61	327	319	441	441	426	425	421	471
6.	Jammu & Kashmir	1960-61	269	232	292	296	301	319	327	329
7.	Karnataka	1956-57	238	243	306	301	294	307	327	339
8.	Kerala	1960-61	259	261	297	303	303	301	299	297
9.	Madhya Pradesh	1960-61	260	217	261	270	256	267	259	281
10.	Maharashtra	1960-61	409	386	427	432	409	446	462	478
11.	Orissa	1960-61	217	239	265	245	253	266	245	..
12.	Punjab	1960-61	347	378	471	472	477	492	496	..
13.	Rajasthan	1960-61	284	262	353	303	274	308	279	317
14.	Tamil Nadu	1960-61	334	317	349	362	356	350	305	338
15.	Uttar Pradesh	1960-61	252	252	269	252	261	250	254	270
16.	West Bengal	1960-61	390	397	382	390	370	372	388	387
	All India per capita net domestic product	1960-61	307	314	356	352	340	352	345	366

## 18.13 Percentage area and population of States in India 1971

Sl. No.	State/Union Territory	Percentage of area	Percentage of population	Density of population	Sex ratio (Females/1000 males)	Per capita Income, 1975-76
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Andhra Pradesh	8.44	7.94	357	977	919
2.	Assam	2.40	2.73	150	897	850
3.	Bihar	5.30	10.28	324	954	661
4.	Gujarat	5.97	4.87	136	934	1195
5.	Haryana	1.33	1.83	227	867	1296
6.	Himachal Pradesh	1.70	0.63	62	958	N.A.
7.	Jammu & Kashmir	6.76	0.84	46	878	883
8.	Karnataka	5.84	5.35	153	957	785
9.	Kerala	1.18	3.90	549	1016	909
10.	Madhya Pradesh	13.50	7.60	94	941	793
11.	Maharashtra	9.38	9.20	164	930	1330
12.	Manipur	0.66	0.20	48	980	N.A.
13.	Meghalaya	0.66	0.18	45	942	N.A.
14.	Nagaland	0.51	0.09	31	871	N.A.
15.	Orissa	4.75	4.01	141	988	785
16.	Punjab	1.52	2.47	269	865	1575

(1)	(2)	(3)	(4)	(5)	(6)	(7)
17.	Rajasthan	10.42	4.70	75	911	894
18.	Tamil Nadu	3.95	7.52	317	978	889
19.	Tripura	0.30	0.28	149	943	781
20.	Uttar Pradesh	8.95	16.12	300	879	1062
21.	West Bengal	2.67	8.09	504	891	N.A.
<b>Union Territory</b>						
22.	Andaman & Nicobar Islands	0.24	0.02	14	644	N.A.
23.	Arunachal Pradesh	2.55	0.09	6	861	N.A.
24.	Chandigarh	N.A.	0.05	2257	749	N.A.
25.	D & N Haveli	N.A.	0.01	151	1007	N.A.
26.	Delhi	0.02	0.74	2738	801	N.A.
27.	Goa, Daman & Diu	0.12	0.16	225	989	N.A.
28.	Laksha Dweep	N.A.	0.01	994	978	N.A.
29.	Mizoram	0.88	N.A.	N.A.	N.A.	N.A.
30.	Pondicherry	N.A.	N.A.	983	989	N.A.
	<b>India</b>	<b>100.00</b>	<b>100.00</b>	<b>173</b>	<b>930</b>	<b>1008</b>

Source: B.E.S., N.A. Not available.

#### 18.14 Estimated per capita consumption of fish in different States in India

State	Quantity of fish for human consumption (Thousand tonnes)	1975 Population (Million)		Per capita consumption of fish Kg.	
		Total population	Population with no objection to fish eating	Based on total population	Based on population with no objection to fish eating
(1)	(2)	(3)	(4)	(5)	(6)
Andhra Pradesh	234.5	48.0	36.0	4.88	6.51
Assam	37.9	16.6	15.8	2.28	2.39
Bihar	61.3	62.1	31.0	0.99	1.98
Maharashtra	351.1	55.6	41.7	6.32	8.42
Delhi	0.03	4.4	3.1	0.06	0.09
Gujarat	180.4	29.5	4.4	6.11	41.00
Himachal Pradesh	0.9	3.8	1.5	0.24	0.60
Jammu & Kashmir	6.3	5.1	5.1	1.24	1.24
Kerala	460.0	23.5	18.8	19.57	24.47
Madhya Pradesh	8.6	46.0	32.2	0.19	0.27
Tamil Nadu	460.0	45.5	36.4	10.11	12.64
Karnataka	180.4	32.3	21.0	5.58	8.59
Orissa	41.5	24.2	19.4	1.71	2.14
Punjab	1.9	15.0	6.0	0.13	0.32
Uttar Pradesh	23.9	97.5	48.8	0.25	0.49
West Bengal	247.1	48.9	48.9	6.05	5.05
Others	67.6	46.7	32.7	1.45	2.07
<b>Total</b>	<b>2363.7</b>	<b>604.7</b>	<b>402.8</b>	<b>3.91</b>	<b>5.87</b>

Source: State Governments for fish production data. For population statistics census report 1971.

## XIX. GLOSSARY OF NAMES OF FISHES

## 19.1 Glossary of technical common and vernacular names of fishes

No.	Group	Common English name for the group	Vernacular name for the group	Old name	Present name	Vernacular name	Common English name
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. NAMES OF MARINE FISHES							
1.	Clupeidae	A. Sardines	Chala or mathi	(a) Clupea longiceps (b) Clupea fimbriata (c) Clupea gibbosa (d) Clupea albella (e) Clupea leio-gaster	Sardinella longiceps Sardinella fimbriata Sardinella gibbosa Sardinella albella Sardinella leiogaster	Nalla mathi Chala mathi or karichala Chala mathi Chooda mathi	Oil sardine Lesser sardine Slender sardine
		B. Rainbow sardine	Kolakoyan	(a) Dussumieria acuta (b) Dussumieria hasselti	Dussumieria acuta Dussumieria hasselti	Kolakoyan Thondan	Rainbow sardine
		C. Indian herring	Kannan mathi	Pellona indica	Ilisha indica	Kannan mathi	Indian herring
		D. White sardine	Mullan chooda	Clupea lile	Kowala coval	Chooda	White sardine
2.	Engraulidae	A. Anchovies	Manangu	(a) Engraulis mystax (b) E. Dussumieri (c) E. Setirostris	Thrissoles mystax T. Dussumieri T. Setirostris	Manangu Nedumanangu Mullanmanangu	Anchovy Long anchovy Anchovy
		B. White bait	Nethal	(a) Engraulis indicus (b) E. Tri (c) E. Commersonii (d) Syolephorus heterolobus	Anchoiella indicus A. Tri A. Commersonii A. Heterolobus	Nethal (Kozhuva) Nethal Vella nethali Kari nethali	White bait " " "
3.	Chirocentridae	Dorab or sabre fish	Vala	Chirocentrus dorab	Chirocentrus dorab	Vala	Dorab or Sabre fish
4.	Megalopidae	Tarpon or oxe-eyed herring	Valathan	Megalops cyprioides	Megalops cyprioides	Valathan	Tarpon or oxe-eyed herring
5.	Aridae	A. Marine cat fish	Etta	(a) Arius dussumieri	Thayasurus dussumieri	Valiyetta	Marine cat fish
		B. Bony whiskered cat fish	Vengidietta	(b) A. Thalassinus Osteogeniosus militaris	T. Thalassinus Osteogeniosus militaris	Navetta Vengidietta	" Bony whiskered cat fish
6.	Mugilidae	Mullet	Malan Thirutha Kanambu	(a) Mugil Cephalus (b) Mugil troscheli (c) Mugil dossu-mieri (d) Mugil Waigensis (e) Mugil oligolepis	Mugil Cephalus M. Troscheli M. Dossu-mieri Ellochelon Waigensis Liza oligolepis	Malan or Thirutha or Kanambu or Norkudiyan	Grey mullets
7.	Polynemidae	Threadfins	Banameen	(a) Polunemus tetractylus (b) Polunemus indicus	Eleutheronema tetractylus Polydactylus indicus	Baameen "	Threadfins or bastard mullets "
8.	Serranidae	Rockcods	Kalawa	(a) Serranus maculatus (b) Serranus lanceolatus (c) Serranus sonnerati (d) Serranus flavoceruleus (e) Serranus tauvina	Epinephelus maculatus E. lanceolatus E. Sonnerati E. Flavoceruleus E. Tauvina	Pullikalawa Varaya kalawa Sonna kalawa Manja kalawa Panni kalawa	Spotted rockcod Banded rockcod Red rockcod Yellow rockcod Speckled rockcod



(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
9. Sillaginidae	Indian whiting	Pooyan	Sillago sihama	Sillago sihama	Poovan		Sand whiting
10. Carangidae	A. Horse Mackerel	Chamban	(a) Caranx kurra	Depraterus russelli			
			(b) C. Crumenophthalmus	Seer crumenophthalmus	Chamban		Horse mackerel
			(c) C. Rottleri	Megalaspis cordyla			
	B. King fish	Parai	(a) Caranx carangus		Kadugapparai		
				Caranx hippos			
			(b) Caranx beckeri	C. fulvoguttatus	Kanayanparai		King fish
			(c) Caranx rottleri	C. Rottleri	Kanameen		
	C. Leather jacket	Varimeen	(a) Chorinemus lysan	Chorinemus laysan	Palameen		Leather jacket or Queen fish
			(b) Chorinemus-moadetta	C. Tol	"		"
	D. Pampano	Yeppa	(a) Trachynotus oblongus	T. russellrii	Yeppa		Pampano or Moon fish
			(b) Trachynotus blochii	T. b. ochii	"		"
	E. Seargent fish	Neimeen	Elacate niger	Rachycentron canadus	Neimeen		Butter fish or prodigal son
11. Lactaridae	Big-jawed jumper	Parava	Lactarius lactarius	Lactarius lactarius	Parava		Big-jawed jumper
12. Jutianidae	Snappers	Chemballi	(a) Lutjanus argenteum	Lutianus argenteum	Chemballi		Redsnapper
			(b) L. malabaricus	L. malabaricus	Chemballi Kora		Malabar snapper
			(c) L. rivulatus	L. rivulatus	Kathupiriyan		Multi-coloured snapper
13. Nemipteridae	Red mullet or Pink perch	Kilimeen or Moopalakora	(a) Synageisja onicus	Nemipterus japonicus	Kilimeen or Mooppalakora		Whiptailed Pink perch
			(b) Synagris bleekeri	N. bleekeri	"		Gaint pink perch
			(c) Synagris tolu	N. Tolu	"		Striped pink perch
14. Leiognathidae	Silver Bally	Mullan	(a) Leiognathus insidiator	Sacutor insidiator	Chakkara Mullan		Silver bellied
			(b) Leiognathus ruconius	S. ruconius	Thakara Mullan		"
			(c) Leiognathus bindus	Leiognathus bindus	Moda Mullan		"
			(d) Leiognathus splendens	L. Splendens	Nalla Mullan		"
			(e) Gaza minuta	Gaza minuta	Moda Mullan		"
15. Pomadasyidae	Grunters	Kurukuruppan	(a) Prispoma maculatus	Pomadasya maculatus	Kurukuruppan		Spotted grunter
			(b) P. hasta	P. Hasta	"		Silver grunter
16. Sciaenidae	Jew fish	Kora	(a) Otolithus ruber	Otolithus ruber	Thollakkora		Jew fishes
			(b) O. argenteus	O. argenteus	Pallikkora		"
			(c) Pseudosciaena diacanthus	Pseudosciaena diacanthus	Cherukora		"
			(d) Pseudosciaena sina	P. Sina	"		"
			(e) Sciaena glauca	Fohnius glauca	Muttikora		"
			(f) Sciaena ossea	Fohnius carutta	"		"
17. Lethrinidae	Sea Breams	Velameen or Narimeen	(a) Lethrinus rebus	Lethrinus rebus	Kaduvameen		Banded sea bream or mata hari
			(b) L. cinereus	L. cinereus	Pullivameen		Silver spotted sea bream
			(c) L. ornatus	L. ornatus	"		Multi-coloured sea bream
18. Mullidae	Goat fishes	Puthiyappala Kora	Upeneoides vittatus	Upeneoides vittatus	Puthiyappalakora		Goat fish

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
19.	Trichiuridae	Ribbon fish	Thalayan	(a) Trichiurus savala (b) Trichiurus haumela	Trichiurus saval T. haumela	Vellithalayan Karinthalayan	Silver ribbon Fish Grey ribbon fish
20.	Scrombridae	A. Mackerel	Ayila	Scomber microlepidotus	Rastrelliger	Kanagurata Ayila	Indo pacific mackerel
		B. Tunny	Soora	(a) Thunnus thunnia (b) Katuswonu palamis	E. Thratus E. Pelamis	urallan Soora Kethal	Little tunny Skipjack
				(c) Auxis thazard (d) Neothunnus macropterus	Auxis thazard Germo albacora	Ayila Soora Manjasoora	Frigate mackerel Yellofin tunny
21.	Cybilidae	Seer	Ayikoora or Nemmeen	(e) Sarda orientalis (a) Cybium commersonii	Sarda orientalis Scomberomorus commersonii	Kanimeen Ayikoora or Nemmeen	Bonito Seer
22.	Histiophoridae	Sail fish	Olameen	(b) C. gattatum Histiophorus gladius	S. guttatum Isticphorus gladius	Olameen	Sail fish
23.	Stomateidae	Pomfrets	Akoli	(a) Stromateus niger (b) Stromateus sanensis	Parastromateus niger Pawous argenteus	Karuthakoli Vellakoli	Black pomfret Silver pomfret
24.	Cynoglossidae	Soles	Manthal or Nangu	(a) Cynoglossus semifasciatus (b) Synaptura orientalis	Cynoglossus semifasciatus Synaptura orientalis	Manthal or Nangu Pullimanthill	Solo "
25.	Bothidae	Flounders		Pseudorhombus tus	Pseudorhombus tricellatus	Nallamanthal	Flounder
26.	Psettodidae Balistidae	Toothed flat fish Trigger fish		Psettodes erumei Balistes stellaris	Psettodes erumei	Ayirampalli	Toothed flat fish
					(a) Abalistes stellaris (b) Balistes spp. (c) Hemibalistes spp. (d) Pseudobalistes spp.	Moori " " "	Trigger fishes
27.	Orectolobidae	Dog fish	Sravu	(a) Chiloscyllium griseum (b) Stegostoma varium (c) Scyllium marmoratus	Chiloscyllium griseum Stegostoma varium Atelomyclerus marmoratus	Korungan sravu Pulli sravu Udumban Sravu	Banded dog fish Zebra dog fish Dog fish
28.	Carcharhinidae	A. Sharp nosed shark	Palsravu	(a) Carcharias lathicaudus (b) Carcharias acutus (c) Carcharias walbheemi	Scoliodon palasorah Scoliodon sorrakowah Scoliodon walbheemi	Pooyi sravu Chundan sravu sravu Kayarakettisravu sravu	Sharp nosed Shark
		B. Sharks	Sravu	(a) Carcharias bleekeri (b) C. imbatu (c) C. melanopterus (d) C. menisorrhachtemminckii (e) C. menisorrhachtemminckii	Carcharias bleekeri C. imbatu C. melanopterus C. menisorrhachtemminckii C. temnickii	Neduvan Pettian Mookan Mandi Thekkan or Nedunthala Pullian	Shark " Black finned Shark "
		C. Tiger sharks	Kallan	(a) Galeocerdo rayneri (b) G. tigrinus	Galeocerdo rayneri C. tigrinus	Kethalan or kallan	Long snout shark Tiger shark

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
29.	Sphyrinidae	Hammer-head soark	Komban sravu or Madayan	(a) Zygaena blochii	Sphyrna blochii	Komban sravu	Hammer head
				(b) Z. tudes	S. tudes	Kannankodi	Shark
				(c) Z. Zygaena	S. Zygaena	Chadayan	"
30.	Pristidae	Saw fish	Makara sravu	(a) Pristis cuspidatus	Pristis cuspidatus	Makarasravu	Saw fish
				(b) P. microdon	P. microdon	"	Wide snouted saw fish
31.	Rhinobatidae	Sand shark or Fiddle fish	Varithala	(a) Rhinobatus gnanulatus	Rhinobatus granulatus	Varithala	Plough fish
				(b) Rhychobatus djeddensis	Rhynobatus djeddensis	Koithala	Guiter fish
32.	Tryngomadae	Sting rays and Thirandi skates	Thirandi	(a) Trygon bleckeri	Dasyatis (Himantura) bleckeri	Chembadan thirandi	Brow bellied ray
				(b) T. uarank	Dasyatis (Himantura) Uarank	Pullipadayan thirandi	Marble sting ray
				(c) T. Sephen	D (Pastinachus) sephen	Olapadayan thirandi	Frill tailed sting ray
				(d) T. imbricata	D. Amphotistius imbricata	Mookan thirandi	Sting ray
				(e) Pleroplatea micrura	Gymhura micrura	Thappu thirandi	Diamond skate
33.	Muliibatidae	Eagle rays	Kakkathirandi	(a) Aetobatis narinari	Abetoatis narinari	Kakkathirandi	Eagle ray
34.	Rhinopterae	Eagle rays	Meithirandi	Rhinoptera javanica	Rhinopters javanica	Meithirandi	Eagle ray
35.	Mobulidae	Devil ray		Dicerobatis eregoodoo	Mobula diabolous	Kottiyadi thirandi or Koorman thirandi	Devil ray
36.	Penacidae	Prawns	Chemmeen	(a) Penaeus indicus	Penaues indicus	Vellachemmeen or Naran	Prawn
				(b) P. Carinatus	P. Carinatus		"
				(c) Metapenaeus dobsonii	Metapenaeus dobsonni	Valachemmeen	"
				(d) Parappaenopsis stylifera	Parappaenopsis stylifera	Karikkadi	"
				(e) Penaeus semisulactus	Panaeus semisulactus	Poovalan	"

#### B. Names of inland Fishes

1.	Notopteridae	Feather back	Ambattankathi	(a) Notopterus notopterus	Notopterus notopterus	Ambattankathi or vala	Feather back
				(b) N. Chitala	N. Chitala	"	
2.	Cyprinidae	A. Carps	Velichi	(a) Chela Spp.	Chela Spp.		Silver fish
				(b) Oxygaster Spp.	Oxygaster Spp.	Velichi	"
				(c) Barilius Spp.	Barilius Spp.		Indian trout
				(d) Dano Spp.	Danio Spp.		Giant danio
				(e) Esmous Spp.	Esmus Spp.	Meesaparava	Flying harbel
				(f) Rasbora Spp.	Rasbora Spp.		Rasbora
				(g) Amblypharyngodon Spp.	Amblypharyngodon Spp.		Mela
				(h) Barbus ticto	Puntius ticto	Kadungali	Ticto barb
				(i) Barbus stigma	Puntius stigma		Stigma barb
		B. Chocolate mahseer	Karumbai	Barbus hexagonalepsis	Acrossochilus hexagonalepsis	Karumbai	Chocolate mahseer
		C. Masheer	Mahseer	Barbuster	Tortor	Mahseer	Mahseer
		D. Carnatic carp	Kaverimeen	Barbus carnaticus	Puntius carnaticus	Kaverimeen	Carnatic carp

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		E. Buchanan's carp		Barbus curmuca	Punitus curmuca		Buchama's carp
		F. Filament barb	Poovali	Barbus filament- osus	P. Filamentous	Poovali	Filamentbarb
		G. Jerdin's carp	Tameen	Barbus jerdonia	P. Jerdoni	Tameen	Jerdon's carp
		H. Cock fish	Kozhimeen	Barbus dubius	P. dubius	Kozhimeen	Cock fish
		I. Catla	Catla	Catla catla	Catla catla	Catla	Catla catla
		J. White carp	Aranjan	(a) Cirrhina reba	Cirrhina reba	Thattaranjan	Reba
				(b) Cirrhina	C. Cirrhosa	Vellaranjan	White carp
			Mrigal	(c) Cirrhina	C. Mrigala	Mrigal	Mrigal
			Kendai	(c) Cirrhina			
		K. Kabeos		(a) Labeo frimbriatus	Labeo fimbriatus	Pirichundan	Fringe lipped carp
				(b) L. Koniuts	L. Kontius	Pannivaya-kendai	Coaleyed carp Rohu
				(c) L. Rohita	L. Rohita	Rohu	Rohu
3. Siluridae	Cat fish	Ettah		(a) Wallagonia attu	Wallago attu	Vala	Fresh water shark
				(b) Saccobranchus fossilis	Heteropneustes Fossilis	Muzhu	Manywhiskered fish
				(c) Marcrones Spp.	Mystus Spp.	Koorior Kaaree	Fresh water cat fish
4. Mugilidae	Mullets	Malam Thirutha Kanambu		Mugli Spp.	Mugli Spp.	Malan, Thirutha etc.	Grey mullets
5. Phiocephalidae	Murrells	Braal, Vakka etc.		Ophiocephalus Spp.	Channa Spp.	Brall, vakka etc.	Murrells
6. Sillaginidae	Indian whiting	Pooya		Sillago shama	Sillago sihana	Pooyan	Sand whiting
7. Megalopidae	Tarpon or Ox-eyed herring	Valathan		Megalops cyprinoides	M. Cyprimoides	Valathan	Tarpon or Ox-eyed herring
8. Polynemidae	Threadfins	Bameen		Polynemus Spp.	Eleutheronema Spp.	Bhameen	Thread fin
9. Chanidae	Milk fish	Poomeen		Chanos chanos	Chanose chanose	Poomeen	Milk fish
10. Sciaenidae	Jew fish	Kora		(a) Sciaena Spp.	(a) Johnus Spp.		
				(b) Otolithus Spp.	(b) Otolithus Spp.	Kora	
					(c) Pseudoscianea Spp.		Jew fish
11. Percidae	Perches	Narimeen		(a) Lates calcarifer	Lates calcarifer	Narimeen	Cockup
				(b) Serrams Spp.	Epinephellur Spp.	Kalwa	Rockcod
				(c) Lutjanus Spp.	Lutiannus Spp.	Chemballi	Snappers
				(d) Ambassis Spp.	Ambassis Spp.	Mullanchooda	Class fish
				(e) Therapon Spp.	Therapon Spp.	Keeri	Tinger perch
12. Labyrinthidae	Gourami	Gourami		Opshronemus gourami	Opshronemus gourami	Gourami	Gourami
13. Cichleidae	Pearlspot Orange chromid Thilapia	Karimeen		(a) Etroplus Suratensis	Etroplus Sur Watensis	Karimeen	Pearlspot
		Pallathai Tilapai		(b) Maculatus	E. Maculatus	Pallathi Tilapia	Orange chromide
				(c) Tilapia Mossambica	T. Mossambica		Tilapia
14. Chirocentridae	Sabre fish or Dorab or siler	Mulluvala		Chirocentrus avarat	Chirocentrus dorab	Mulluvala	Dorab or Silver boar or Sabre fish
15. Engraulidae	White bait	Nethal		Stolephorus Spp.	Anchoviella Spp.	Nethal	White bait
16. Gobiidae	Goby	Vembilli		Classogobius giuris	Classogobius giuris	Vembili	Goby
17. Cynoglossidae	Sole	Manthal		Cynoglossus Spp.	Cynoglossus Spp.	Manthal	Sole
18. Anguillidae	Eels	Aareal		Auguilla Sp.	Auguills Spp.	Aaral	Eel
19. Clupeidae	Sprat	Koohaveli		Spratellides Spp.	Spratellides Spp.	Koohaveli	Spart
20. Crabs	Crabs	Njandu		(a) Scylla Spp.	Scylla Mpp.	Njandu	Carbs
				(b) Neptunus Spp.	Neptunus Spp.	"	"

## XX OTHERS

## 20.1 Monthly Maximum and Minimum Temperature at selected centres for the year 1976

(in degree centigrade)

Stations	Trivandrum		Alleppey		N.A.S. Cochin		Kozhikode	
Months	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	31.3	21.5	31.5	21.8	30.5	21.7	31.1	20.9
February	31.8	21.5	31.7	23.1	31.1	22.9	31.4	22.1
March	33.0	23.2	32.7	24.9	31.9	24.9	32.2	24.7
April	32.4	24.8	33.1	24.8	32.1	25.3	32.2	25.0
May	31.8	24.8	32.1	25.6	31.4	25.8	32.1	25.9
June	31.5	24.0	31.0	24.6	30.7	24.6	30.4	24.3
July	29.7	23.4	29.1	23.5	29.2	23.5	28.5	23.5
August	29.8	23.2	29.3	23.6	29.1	24.0	28.7	23.7
September	30.4	23.4	30.4	24.1	30.1	24.1	30.2	24.1
October	30.3	23.2	31.0	24.1	30.6	24.3	31.2	24.2
November	29.7	23.1	30.5	24.0	30.7	24.0	31.1	23.9
December	30.9	22.9	31.9	21.7	31.6	23.4	31.6	22.7

Source: Meteorological Centre, Trivandrum.

## 20.2 Monthly Maximum and Minimum Temperature at selected centres for the year 1977

(in degree centigrade)

Stations	Trivandrum		Alleppey		N.A.S. Cochin		Kozhikode	
Months	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	31.4	21.4	31.8	22.8	31.2	22.4	31.3	21.7
February	31.4	23.0	31.9	23.9	31.7	24.0	32.1	23.7
March	33.0	24.1	33.0	25.1	32.6	25.5	33.2	25.5
April	32.9	25.1	33.4	25.7	33.0	25.7	33.5	26.3
May	31.0	24.1	31.5	24.8	31.3	24.5	31.7	25.1
June	29.8	23.4	30.1	23.9	29.7	24.1	29.4	24.2
July	29.9	23.2	29.0	23.5	29.5	23.6	28.0	23.3
August	30.2	23.7	29.7	24.1	29.6	24.4	29.0	24.0
September	30.6	23.5	30.1	24.2	29.7	24.2	29.4	24.1
October	29.4	23.3	30.9	24.3	30.6	24.4	30.9	24.2
November	30.4	23.1	30.9	24.2	30.5	24.1	30.3	23.8
December	31.8	22.3	32.0	22.9	31.6	22.5	31.2	21.7

Source: Meteorological Centre, Trivandrum.



## 20.3 Monthly maximum and Minimum temperature at selected Centres for the Year 1978

Stations	Trivandrum		Alleppey		N.A.S. Cochin		Kozhikode	
Months	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	31.6	21.9	31.6	23.2	31.2	22.4	31.3	22.1
February	32.3	23.2	32.1	24.1	31.7	24.0	31.7	23.6
March	32.7	24.5	32.5	25.3	32.6	25.5	32.6	24.8
April	33.0	25.3	32.9	25.9	33.0	25.7	33.6	26.5
May	31.6	24.5	32.1	25.2	31.3	24.5	32.1	25.3
June	29.6	23.1	29.2	23.3	29.7	24.1	28.1	23.0
July	29.0	22.8	28.4	23.2	29.5	23.6	27.7	23.1
August	28.8	22.8	28.3	23.3	29.6	24.4	28.0	23.4
September	30.1	23.0	29.5	23.7	29.7	24.2	29.3	23.8
October	30.3	23.4	30.8	24.3	30.6	24.4	31.0	24.3
November	30.3	22.5	30.7	24.3	30.5	24.1	30.7	23.4
December	31.3	23.2	32.0	24.2	31.6	22.5	31.4	23.4

## 20.4. Monthly Maximum and Minimum Temperature at selected Centres—Year 1979

(in Degree Centigrade)

Stations	Trivandrum		Alleppey		Cochin		Kozhikode	
Months	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	32.0	22.7	32.5	23.3	31.2	22.4	31.8	22.9
February	32.1	23.5	31.8	24.4	31.5	24.2	31.9	24.2
March	32.7	24.3	33.2	25.5	32.1	25.1	32.8	25.1
April	33.5	25.4	35.5	26.3	32.7	25.7	33.1	26.1
May	32.4	25.0	32.5	26.2	31.6	25.4	32.5	26.0
June	30.6	24.0	30.7	24.7	28.7	23.3	30.6	24.6
July	29.5	23.4	28.8	23.7	28.7	23.2	28.0	23.5
August	29.9	23.2	29.5	23.9	28.5	23.5	28.4	23.3
September	30.3	23.4	30.2	24.4	29.3	23.9	29.7	24.3
October	30.8	23.7	31.1	24.5	30.4	24.2	31.0	24.5
November	29.6	23.2	30.7	24.1	31.4	24.0	30.9	24.2
December	31.4	23.1	31.0	23.8	32.9	23.7	31.8	23.5

Source: Meteorological Centre, Trivandrum.

## 20.5 Monthly Maximum and Minimum Temperature at selected Centres for the year 1980

Stations	Trivandrum		Punalur		Alleppey		N.A.S. Cochin		Palghat		Kozhikode	
Months	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
January	32.4	21.8	34.0	19.7	32.4	22.1	32.3	21.8	33.3	21.6	31.6	21.3
February	32.4	22.8	35.8	21.1	32.3	23.6	32.1	N.A.	35.7	22.1	31.8	23.5
March	33.2	24.4	37.2	23.3	33.0	25.1	32.9	N.A.	37.2	23.7	32.9	25.1
April	33.3	25.5	35.4	24.4	33.4	25.8	33.5	N.A.	36.5	25.0	33.3	26.0
May	33.1	25.6	35.3	24.5	33.3	26.1	33.7	26.2	34.3	25.0	33.2	26.6
June	30.0	23.9	30.7	22.9	30.4	24.2	30.3	23.8	29.5	23.1	29.2	24.2
July	29.5	22.9	29.4	22.3	28.8	23.1	29.1	23.2	28.2	22.9	28.2	23.5
August	29.7	23.1	30.2	22.8	28.8	23.5	29.1	23.7	28.6	23.3	28.3	23.5
September	30.9	23.5	32.1	22.9	29.6	23.9	30.5	24.4	31.0	24.4	29.2	24.0
October	30.2	23.6	31.7	23.0	30.7	23.9	31.1	24.3	31.3	24.3	30.8	24.2
November	31.0	23.5	N.A.	N.A.	31.7	24.5	31.9	24.3	32.8	24.8	31.7	24.0
December	31.2	23.1	32.5	21.9	31.5	23.5	32.0	23.8	33.1	23.2	31.8	23.4

## 20.6. Relative Humidity at selected Centres in Kerala during the year 1976

Stations	Trivandrum		Punalur		Alleppey		Fort Cochin (N.A.S.)		Palghat		Kozhikode	
Months	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
January	67	59	75	38	71	..	72	58	64	42	70	60
February	67	61	81	36	75	..	73	61	67	37	73	65
March	74	65	80	43	77	..	76	70	85	52	77	72
April	79	72	87	61	78	..	77	68	87	66	75	71
May	81	73	89	64	81	..	81	72	87	70	76	74
June	78	71	88	65	82	..	84	74	88	74	83	77
July	88	80	93	78	92	..	91	82	90	81	92	85
August	87	77	93	77	92	..	89	82	89	78	91	87
September	83	75	90	67	84	..	84	76	87	69	82	79
October	86	80	92	76	84	..	82	75	82	71	81	77
November	88	86	95	80	88	..	84	79	84	75	84	76
December	78	70	88	55	74	..	74	61	71	54	75	66

## 20.7. Relative Humidity at selected Centres in Kerala during the year 1977

Stations	Trivandrum		Alleppey		Fort Cochin Naval Air Station		Kozhikode	
Months	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	70	59	70	63	71	58	72	62
February	77	63	76	67	79	65	75	67
March	77	68	77	69	78	69	75	68
April	80	72	78	74	78	72	73	69
May	88	79	85	78	85	75	83	78
June	89	78	91	84	89	81	90	85
July	87	76	93	86	91	85	85	89
August	87	77	90	84	87	80	86	84
September	84	78	86	84	85	80	88	83
October	94	84	86	81	86	78	86	78
November	88	82	85	76	85	77	86	80
December	72	66	72	63	73	58	74	63

## 20.8. Relative Humidity at selected Centres in Kerala during the year 1978

Stations	Trivandrum		Alleppey		Fort Cochin Naval Air Station		Kozhikode	
Months	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	77	65	73	65	74	63	77	65
February	75	63	77	67	78	62	77	69
March	82	69	79	72	76	67	74	70
April	81	72	79	73	77	68	73	72
May	86	82	85	79	84	77	81	77
June	87	78	92	88	90	83	93	87
July	88	81	93	90	90	84	92	88
August	91	82	94	88	90	84	93	89
September	85	76	89	81	85	77	84	84
October	88	81	81	77	85	77	84	79
November	83	77	81	74	82	74	83	75
December	81	71	74	65	72	62	76	70

## 20.9. Relative Humidity at selected Centres in Kerala during the year 1979

Stations	Trivandrum		Punalur		Alleppey		Fort Cochin (N.A.S.)		Palghat		Kozhikode	
Months	8.30 IST	17.30 ITS	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
January	76	65	82	42	74	67	73	58	79	51	77	65
February	83	67	88	52	80	71	79	65	83	56	75	68
March	79	66	82	54	76	71	74	65	80	44	74	69
April	77	69	86	66	75	72	74	67	79	49	75	72
May	81	72	89	67	80	75	78	70	78	58	76	71
June	87	79	92	77	89	84	87	80	90	79	84	82
July	89	80	94	82	92	88	90	84	94	88	93	89
August	89	75	91	69	89	84	87	80	93	84	91	86
September	88	81	92	77	87	85	86	78	79	73	89	84
October	85	77	91	72	83	74	88	72	81	64	84	77
November	91	83	93	88	82	79	86	75	86	79	91	77
December	83	72	84	60	77	66	74	64	78	62	79	66

## 20.10. Relative Humidity at selected Centres in Kerala during the year 1980

Stations	Trivandrum		Punalur		Alleppey		Fort Cochin N.A.S.		Palghat		Kozhikode	
Months	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
January	72	58	77	42	68	59	68	64	73	54	73	59
February	74	62	76	45	77	67	76	61	69	37	80	69
March	77	67	79	55	77	70	75	66	74	43	75	67
April	80	73	84	70	79	74	75	70	83	56	76	71
May	80	73	87	65	81	76	77	69	85	66	78	72
June	89	82	94	81	91	86	89	86	90	84	91	87
July	91	78	93	80	93	89	92	88	91	86	93	89
August	89	78	93	72	92	86	90	81	91	83	92	85
September	84	76	90	71	88	84	83	76	87	73	90	83
October	86	82	92	78	87	79	84	76	85	76	86	79
November	85	77	N.A.	N.A.	82	73	79	70	74	67	83	72
December	81	70	84	65	84	71	79	66	75	57	79	67

N.A.S.—Naval Air Station

## 20.11. District-wise Monthly Distribution of Rainfall in Kerala (in mm.) for the year 1976

District	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	..	..	20.1	57.0	62.8	59.4	151.2	140.9	46.1	146.6	229.5	33.0
Quilon	0.4	..	37.0	143.9	98.3	155.6	353.1	259.7	110.7	322.6	362.4	38.1
Alleppey	..	..	33.8	77.0	119.2	181.6	454.6	298.9	99.8	275.9	426.5	33.3
Ernakulam	..	8.7	33.2	159.7	110.2	200.0	680.5	391.5	94.1	327.1	363.1	44.8
Trichur	..	..	9.6	105.9	84.7	219.3	732.1	440.6	130.2	200.0	217.3	20.6
Malappuram	..	..	3.4	158.1	41.0	186.3	658.8	372.0	75.6	237.5	296.8	37.2
Kozhikode	..	..	10.7	90.0	66.5	218.1	974.7	445.8	135.0	212.5	350.2	39.7
Cannanore	..	..	6.3	33.9	66.3	411.1	1054.9	429.4	185.2	90.2	209.4	13.5

## 20.12. District-wise Monthly Distribution of Rainfall in Kerala (in mm.) for the year 1977

District	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	4.1	19.9	33.2	88.2	361.3	228.8	175.2	97.5	106.0	527.7	202.7	18.2
Quilon	0.4	44.2	47.7	145.4	497.5	411.8	343.6	145.0	160.9	535.3	317.9	9.9
Alleppey	..	13.6	74.8	139.8	599.1	698.7	517.4	223.9	199.1	500.4	337.4	14.7
Ernakulam	..	18.4	44.3	206.0	369.3	593.8	643.7	233.9	176.0	420.3	498.5	..
Trichur	..	6.7	31.1	47.3	317.1	678.8	892.6	238.1	211.6	476.9	513.7	..
Malappuram	..	..	28.1	88.3	278.3	640.5	697.4	205.3	172.0	492.2	422.3	..
Kozhikode	..	3.4	10.8	60.1	305.6	1005.4	1592.1	389.4	288.8	516.3	498.3	..
Cannanore	..	12.4	7.6	30.8	208.0	812.4	1374.5	307.8	206.1	320.4	297.0	1.2

## 20.13. District-wise Monthly Distribution of Rainfall in Kerala (in mm.) for the year 1978

District	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	7.7	22.6	66.8	76.6	388.0	231.4	342.5	163.3	53.8	92.4	643.1	42.9
Quilon	0.7	22.3	117.9	176.3	450.3	356.9	454.8	339.9	177.7	207.8	634.4	18.7
Alleppey	..	17.6	51.2	70.1	484.0	536.2	619.4	409.8	184.4	205.3	463.3	51.0
Ernakulam	22.0	21.6	15.0	42.1	630.4	945.1	691.3	496.3	208.2	345.3	356.4	55.5
Trichur	..	16.5	23.0	32.1	263.1	835.2	901.1	703.3	90.0	168.0	341.8	63.5
Malappuram	..	5.0	..	40.0	278.0	820.9	691.7	548.7	209.0	85.0	513.8	5.0
Kozhikode	..	3.7	..	0.6	535.3	1415.1	1164.1	634.9	215.3	128.8	372.2	58.1
Cannanore	..	..	2.0	22.2	471.6	1334.3	1035.5	687.7	129.0	54.0	128.8	51.7

Source: Revenue Board, Trivandrum.



## 20.14. District-wise Monthly Distribution of Rainfall in Kerala (in mm.) for the year 1979

District	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	3.1	73.3	40.5	43.8	117.3	446.2	183.0	178.0	229.0	96.7	273.1	69.3
Quilon	5.7	67.0	14.3	104.8	144.6	680.6	764.8	421.0	554.9	536.3	961.8	65.4
Alleppey	7.6	151.7	22.5	80.3	147.6	705.7	579.2	193.8	265.3	208.7	385.4	56.4
Kottayam	0.0	0.0	0.0	66.6	109.6	705.7	475.7	332.6	350.9	290.4	299.4	100.4
Idukki	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Ernakulam	13.5	28.6	4.6	36.4	103.2	1137.9	653.8	327.4	334.3	273.8	292.2	N.A.
Trichur	..	16.4	11.6	55.8	137.7	813.7	846.1	490.6	324.5	146.8	255.4	2.9
Palghat	0.0	58.6	0.0	70.4	152.4	346.0	499.0	384.0	118.6	94.0	442.4	0.0
Malappuram	..	21.0	..	88.0	139.0	678.8	876.8	544.2	..	185.1	..	26.7
Kozhikode	0.0	0.0	1.9	55.8	93.9	720.2	1079.3	467.1	144.9	93.0	213.2	17.5
Cannanore	2.6	10.3	1.1	26.4	54.9	594.9	1233.3	628.9	215.7	75.8	119.0	12.5

R/F 24 hours ending 0830.

## 20.15. District-wise Monthly Distribution of Rainfall in Kerala (in m.m.) for the year 1980

District	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	0.0	0.0	21.9	92.6	128.9	361.9	178.0	163.2	179.9	207.3	150.6	81.3
Quilon	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Alleppey	0.0	19.2	70.8	257.3	144.6	751.1	814.0	440.3	135.6	472.5	240.9	268.2
Kottayam	0.0	29.4	37.2	75.0	111.2	829.5	820.0	490.3	100.7	515.9	N.A.	30.2
Idukki	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Ernakulam	0.0	3.4	33.0	71.1	40.5	941.7	814.5	405.2	73.9	389.8	219.1	50.1
Trichur	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Palghat	0.0	0.0	41.6	127.0	210.4	653.6	538.8	326.0	132.6	345.0	345.0	5.8
Malappuram	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Kozhikode	0.0	0.0	1.7	169.0	50.2	1226.1	1066.8	516.3	99.9	329.2	130.3	7.6
Cannanore	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	743.5	138.9	182.8	78.3	4.4

R/F 24 hours ending 0830

43/3530/MC.

## 20.16. Average Speed (Km. P.h.) of Wind at different Centres of Kerala during 1976

Station	Trivandrum		Alleppey		N.A.S. Cochin		Kozhikode	
Months	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	2.71	7.94	7.61	N.A.	6.32	11.35	6.84	12.06
February	3.52	9.66	5.86	N.A.	7.03	13.79	6.21	13.66
March	2.81	9.52	6.19	N.A.	5.74	15.61	4.52	15.68
April	5.5	11.7	5.6	N.A.	4.07	13.0	3.71	14.38
May	9.10	14.27	8.65	N.A.	6.67	14.8	6.58	17.74
June	7.8	14.73	6.07	N.A.	4.4	10.5	5.07	9.47
July	8.0	15.16	6.86	N.A.	5.19	7.74	4.06	8.32
August	9.42	15.03	6.55	N.A.	2.77	11.87	3.61	9.10
September	9.73	14.4	7.2	N.A.	4.2	12.03	3.87	8.93
October	2.90	8.0	6.65	N.A.	4.26	9.74	4.06	8.58
November	0.27	3.93	5.33	N.A.	3.2	7.93	3.27	8.13
December	0.0	2.90	4.97	N.A.	4.0	10.26	5.55	7.74

Source: Meteorological Centre, Trivandrum.

## 20.17. Average Speed of Wind (Km. P.h.) at different Centres of Kerala during 1977

Station	Trivandrum		Alleppey		N.A.S. Cochin		Kozhikode	
Months	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	1.29	5.42	7.16	16.90	6.0	12.45	6.71	9.81
February	0.84	9.9	5.82	20.39	3.43	13.57	5.14	11.0
March	0.77	7.35	4.77	20.71	4.39	13.03	4.0	10.0
April	0.93	7.75	6.13	17.2	3.8	12.53	4.13	10.93
May	2.65	9.48	5.87	15.87	5.26	11.35	2.58	8.77
June	6.13	16.63	8.47	13.57	4.37	7.8	3.07	7.13
July	9.42	16.58	8.58	13.47	2.97	11.23	3.10	4.84
August	8.94	18.8	6.13	15.03	5.10	9.65	2.52	5.68
September	11.1	15.5	6.07	16.8	4.13	11.67	1.8	6.07
October	1.48	4.45	5.23	13.10	3.29	7.42	3.61	8.03
November	1.6	4.33	6.13	14.76	2.93	8.43	4.0	7.13
December	0.52	4.19	5.61	16.96	5.35	8.87	6.58	8.0

Source: Meteorological Centre, Trivandrum.

20.18. Average Speed of Wind (Km. P.h.) at different Centres of Kerala during 1978

Stations	Trivandrum		Alleppey		N.A.S. Cochin		Kozhikode	
Months	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	0.97	6.87	5.87	19.55	6.06	12.26	6.70	9.23
February	1.64	7.79	4.93	21.86	5.0	13.25	5.43	11.07
March	1.45	7.65	4.97	20.48	3.68	15.35	5.10	11.81
April	4.67	9.13	5.53	18.77	4.0	13.33	4.53	12.13
May	5.42	8.26	6.13	17.10	4.13	11.48	4.65	11.16
June	9.13	12.8	5.27	10.27	4.4	7.33	5.2	6.67
July	8.84	13.16	7.10	11.61	2.06	10.52	4.65	8.35
August	11.10	15.10	7.23	10.58	4.13	10.71	3.29	7.74
September	13.67	17.8	5.27	16.73	2.73	14.33	4.33	8.33
October	4.71	10.39	4.52	14.06	2.19	9.55	4.77	9.23
November	3.47	8.87	6.33	17.13	5.4	13.73	6.40	9.0
December	0.58	5.35	4.52	15.42	3.87	10.06	5.10	7.61

Source: Meteorological Centre, Trivandrum.

20.19. Average Speed of Wind (Km. P.h.) at different Centres of Kerala during 1979

Station	Trivandrum		Alleppey		N.A.S. Cochin		Kozhikode	
Months	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	0.84	9.23	5.10	17.94	5.16	12.65	7.23	10.39
February	0.79	9.50	5.0	20.5	4.57	15.68	5.43	11.93
March	2.65	10.26	5.42	18.77	3.48	13.74	5.61	13.61
April	6.13	14.47	5.4	22.07	4.6	15.2	5.74	13.73
May	8.32	13.74	9.03	21.48	4.45	14.19	18.61	29.68
June	11.00	14.8	9.13	14.8	5.13	10.87	5.93	11.27
July	10.58	16.97	5.94	15.94	5.16	11.61	4.39	8.97
August	11.10	15.35	6.52	13.94	5.03	12.52	4.32	9.29
September	6.13	10.93	6.13	14.73	2.4	11.4	5.27	10.93
October	3.35	9.35	5.10	15.42	1.68	10.97	5.03	10.19
November	3.87	13.20	12.7	24.7	5.03	21.0	10.73	22.67
December	0.52	6.19	4.52	12.39	3.10	11.03	7.68	10.97

Source: Meteorological Centre, Trivandrum.

## 20.20. Average Speed of Wind (Km. P.h.) at different Centres of Kerala during 1980

Station	Trivandrum		Alleppey		N.A.S. Cochin		Kozhikode	
Months	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST	8.30 IST	17.30 IST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	2.26	8.32	5.35	17.81	5.10	13.03	8.13	13.03
February	1.45	9.10	6.69	18.69	4.55	13.69	6.41	12.71
March	1.94	9.87	5.58	21.23	2.90	13.29	6.32	14.52
April	4.27	11.07	6.13	19.4	3.67	14.73	5.6	14.00
May	7.48	12.32	5.29	15.10	3.29	14.32	6.65	14.26
June	5.42	10.9	10.27	15.7	6.67	10.17	8.67	10.07
July	8.45	14.87	8.45	10.77	2.84	9.16	2.65	8.0
August	9.23	15.90	4.84	8.13	3.61	9.94	4.77	9.03
September	9.53	14.53	5.2	12.27	4.73	13.27	4.67	11.0
October	2.52	6.52	5.23	14.06	2.19	10.77	5.48	10.84
November	1.33	4.73	5.4	12.8	1.93	8.00	6.33	9.47
December	1.94	7.42	5.68	11.35	4.06	5.10	6.71	11.42

Source: Meteorological Centre, Trivandrum.

## 20. 21 Evaporation during 24 hours ending 03.30 Hrs. I. S. T. (m.m.)

Centre: TRIVANDRUM

Year: 1976

• Month/Date	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	2.8	4.0	5.4	4.0	6.0	1.7	2.5	4.5	0.7	4.9	4.7	3.1
2	6.6	3.0	5.0	3.0	4.8	4.7	4.0	4.0	3.8	5.0	3.5	1.6
3	3.6	6.4	6.5	4.5	6.0	3.3	5.3	4.8	3.5	5.4	2.2	2.5
4	5.1	4.2	5.5	4.4	4.5	5.3	4.7	5.1	4.8	2.8	1.6	5.0
5	3.2	3.8	4.0	5.2	6.3	5.0	1.2	4.0	3.9	2.0	3.5	2.8
6	6.0	6.0	6.8	4.3	6.1	6.0	4.0	4.0	3.1	5.1	3.4	3.0
7	5.5	6.0	4.6	5.6	7.2	4.0	3.0	5.5	3.0	2.7	2.2	1.2
8	3.4	3.8	6.0	4.6	4.3	5.9	4.2	8.0	4.6	3.1	3.5	2.8
9	4.0	5.6	5.0	6.0	6.2	2.9	4.6	5.6	4.5	2.9	2.3	3.5
10	4.3	5.3	5.5	5.5	5.6	6.2	4.5	3.5	3.4	1.3	1.4	5.2
11	3.6	4.8	4.6	6.2	6.0	3.9	2.6	5.5	4.0	1.7	3.5	3.1
12	5.6	4.8	6.2	6.4	5.6	3.6	5.2	3.8	2.7	3.5	0.8	4.2
13	3.2	5.7	5.5	6.0	4.3	3.6	4.0	4.6	4.3	4.5	3.0	4.5
14	4.0	4.4	6.0	5.4	3.6	7.3	4.0	4.0	3.3	3.7	2.3	4.0
15	3.3	6.4	3.7	4.1	4.8	4.6	4.0	5.3	4.0	2.2	1.4	4.0
16	3.4	4.6	6.5	4.6	3.6	4.0	3.8	4.2	5.4	1.7	2.1	4.0
17	3.2	5.5	6.0	5.5	2.9	6.0	1.7	5.0	4.6	1.4	1.2	3.5
18	6.0	4.2	6.5	5.0	4.4	6.5	3.2	4.0	4.0	2.0	0.7	5.6
19	4.0	8.6	5.2	6.3	3.8	5.0	2.1	5.5	6.0	2.9	2.2	4.0
20	6.0	4.2	6.0	6.0	3.2	5.0	1.3	4.0	4.4	1.7	1.9	3.8
21	2.8	4.8	6.7	6.2	5.2	4.1	1.7	5.4	5.5	1.5	4.5	4.5
22	8.0	5.0	6.0	3.0	5.3	7.0	5.5	5.0	5.2	4.0	3.1	4.0
23	4.6	7.2	5.8	5.7	5.3	3.7	1.3	3.5	5.0	4.5	3.0	2.0
24	3.2	5.5	6.3	5.0	4.0	4.0	1.2	2.8	5.6	4.5	4.0	3.0
25	6.0	6.0	5.5	6.6	3.6	2.6	4.0	1.0	3.3	4.8	2.9	3.5
26	6.0	4.7	6.4	2.0	5.8	1.4	2.3	5.3	4.5	3.8	3.7	1.9
27	4.0	6.0	6.5	3.0	5.8	2.1	1.6	2.2	4.6	3.8	3.0	3.6
28	6.0	4.0	6.1	6.1	4.0	4.0	4.5	2.0	6.1	5.1	1.1	3.6
29	3.2	5.8	5.0	5.1	5.1	4.4	4.0	0.4	3.0	5.1	3.0	4.0
30	5.0	..	6.9	5.0	4.3	4.2	5.0	3.6	4.8	3.7	1.4	4.2
31	3.4	..	5.6	..	2.8	..	4.0	3.5	..	3.9	..	4.2



## 20. 22 Evaporation during 24 hours ending 08.30 Hrs. I. S. T. (m.m.)

Centre: TRIVANDRUM

Year: 1977

Month/Date	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	4.0	3.5	5.6	3.5	2.6	1.9	4.0	4.0	4.7	4.0	3.0	3.2
2	4.0	5.0	5.8	5.6	5.0	3.1	3.1	6.0	2.6	2.6	3.5	6.0
3	5.4	4.8	5.3	5.4	2.0	2.3	3.9	5.0	3.2	3.4	2.9	2.2
4	4.5	6.1	5.8	6.0	5.5	3.2	4.0	4.6	3.2	3.8	4.0	4.0
5	4.0	1.8	5.2	5.5	5.3	1.6	3.5	4.5	4.0	4.0	2.3	4.9
6	3.5	2.5	4.0	4.6	3.7	1.4	1.5	6.0	3.8	4.0	1.3	5.0
7	4.8	4.0	5.6	4.0	1.9	3.5	1.2	3.8	6.0	2.7	3.0	3.5
8	4.2	5.2	2.6	6.2	1.2	1.4	4.5	5.0	3.4	3.2	3.5	3.0
9	4.2	3.4	5.4	4.2	1.3	4.0	3.5	5.0	6.6	3.5	1.9	4.0
10	3.7	3.4	4.6	5.8	2.5	4.4	5.2	5.0	2.8	4.4	4.3	4.0
11	6.2	5.5	6.0	5.0	1.9	2.0	4.6	4.0	3.8	3.9	4.1	1.8
12	5.3	4.7	3.9	5.0	3.3	6.7	3.0	5.0	2.9	1.5	5.0	4.0
13	4.8	3.0	3.6	4.5	4.0	6.0	3.0	4.8	3.4	0.8	3.8	4.2
14	4.8	4.0	4.0	6.0	5.0	3.0	4.0	4.6	4.1	3.5	4.5	6.0
15	5.2	5.5	5.5	4.8	4.4	1.2	5.5	5.0	4.5	4.0	1.5	2.5
16	6.0	3.6	4.6	4.5	3.5	2.8	3.8	4.0	5.0	2.2	1.4	4.8
17	5.2	5.6	6.2	3.8	3.7	2.3	3.7	4.5	4.4	2.3	2.8	3.8
18	4.5	3.5	3.6	5.0	5.0	2.7	0.9	6.0	4.8	2.8	3.5	4.9
19	4.2	2.1	5.0	6.6	4.4	3.6	2.4	2.4	5.0	2.0	3.2	4.0
20	6.0	4.0	2.6	5.7	2.5	2.4	4.1	2.2	4.6	1.3	2.8	4.0
21	4.2	3.9	6.0	5.0	4.4	1.5	1.7	1.9	5.0	2.2	2.5	3.0
22	4.5	3.2	4.6	4.8	3.4	3.2	2.3	3.5	4.5	3.0	3.4	5.5
23	6.4	5.5	6.0	2.0	3.6	1.8	3.4	4.1	5.5	1.1	2.1	3.0
24	5.8	4.5	4.0	4.0	3.6	3.3	4.9	2.9	5.2	3.0	4.0	3.5
25	5.0	5.8	6.4	4.1	5.2	3.5	3.5	2.8	6.4	0.7	1.9	3.5
26	4.0	5.8	5.5	4.2	3.9	5.2	2.8	2.3	3.8	0.8	1.7	3.0
27	5.5	4.8	6.2	3.0	4.3	4.0	2.8	3.4	4.6	3.0	1.1	3.8
28	5.3	6.4	5.5	5.5	3.8	4.2	4.5	5.0	4.5	3.0	3.3	4.0
29	2.2	..	6.5	4.0	2.7	4.0	3.5	3.5	4.0	4.6	2.7	3.8
30	4.0	..	4.9	7.0	2.6	4.3	3.8	6.0	3.5	2.2	2.5	3.2
31	6.0	..	4.3	..	1.5	..	3.4	3.5	..	4.0	..	4.0

## 20.23 Evaporation during 24 hours ending 00.30 hours Indian Standard Time (m.m.)

Centre: TRIVANDRUM

Year: 1978

Month/Date	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	4.0	3.6	5.0	4.0	3.9	2.3	2.9	3.5	4.6	3.9	1.5	4.5
2	4.0	3.4	6.0	5.5	4.0	3.0	4.2	1.6	4.5	2.9	7.4	3.5
3	6.0	2.8	5.2	5.5	4.1	2.3	1.9	3.5	5.0	4.5	2.2	4.5
4	3.2	5.0	3.8	5.0	3.8	2.4	4.0	3.5	4.5	4.0	0.6	2.0
5	4.5	3.5	1.9	3.2	4.0	3.7	4.0	3.8	4.7	3.0	1.1	3.0
6	4.0	4.5	4.5	7.1	4.2	4.6	4.3	3.6	4.5	6.0	2.9	3.5
7	6.0	5.0	5.0	3.8	3.4	3.5	2.7	2.6	4.4	4.4	1.1	4.5
8	3.8	4.5	3.4	2.1	4.0	3.1	3.6	2.3	6.0	4.5	4.8	4.4
9	3.6	4.0	4.2	3.3	4.0	2.4	3.5	2.6	4.0	4.0	5.0	3.0
10	3.4	5.0	4.0	3.3	2.4	4.3	2.9	2.5	4.0	5.5	4.0	2.2
11	6.0	4.8	6.4	3.3	4.2	2.2	3.8	2.7	3.8	3.9	3.0	4.0
12	4.5	4.5	6.0	2.3	3.3	3.9	2.9	1.0	4.5	4.0	4.4	1.6
13	5.6	5.5	5.6	5.0	2.1	2.2	1.8	3.2	4.2	4.2	2.8	2.2
14	4.0	4.0	4.8	5.5	2.5	3.4	3.2	4.6	5.7	5.0	3.0	3.0
15	4.2	6.8	5.1	4.5	3.7	1.2	2.6	3.7	2.4	4.0	3.1	3.5
16	5.0	5.5	5.0	8.8	3.4	2.7	3.5	2.6	2.9	4.0	5.0	3.0
17	4.1	5.0	5.5	5.5	2.9	1.8	3.2	3.5	5.0	4.0	3.9	4.4
18	4.0	4.5	6.0	4.3	1.3	2.7	4.7	3.5	3.8	4.4	2.2	2.0
19	5.8	6.0	6.4	4.5	3.8	4.0	3.6	3.7	4.3	2.8	3.2	4.0
20	4.5	4.0	5.0	7.0	1.5	4.7	4.1	1.7	4.4	3.5	4.2	3.3
21	5.0	4.0	5.7	4.6	3.0	3.5	5.0	2.0	3.3	2.9	3.7	4.0
22	4.0	4.0	4.5	5.5	3.8	4.5	5.1	1.5	4.4	3.0	3.4	4.0
23	6.0	5.5	6.0	3.9	3.8	3.2	0.8	4.5	4.8	2.6	3.2	4.5
24	3.2	4.0	4.8	6.4	4.5	5.2	2.7	0.6	4.6	2.0	3.4	1.0
25	3.4	4.5	4.0	4.0	3.9	2.6	2.1	2.0	3.7	1.5	0.9	1.2
26	4.0	4.0	4.0	4.8	4.0	4.4	3.0	1.5	5.0	0.8	3.3	3.0
27	6.0	6.7	4.2	5.0	3.2	1.6	1.8	1.7	3.2	3.0	4.2	2.8
28	3.0	6.5	4.0	4.9	3.0	3.8	3.2	0.0	2.0	2.5	3.0	2.8
29	4.0	..	4.8	4.8	4.6	2.8	3.5	1.2	3.3	2.3	4.0	4.0
30	5.2	..	3.7	5.5	2.8	2.7	3.0	3.4	3.0	2.2	2.6	3.0
31	6.2	..	2.0	..	1.3	..	3.5	3.8	..	2.6	..	3.5

## 20.24 Evaporation during 24 hours ending 08.30 hours Indian Standard Time (m.m.)

Centre: TRIVANDRUM

Year: 1979

Month/Date	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	2.1	3.5	4.5	6.6	5.6	4.5	3.3	3.4	4.5	4.2	4.3	4.3
2	4.5	5.3	6.2	5.5	5.5	5.5	4.5	2.6	2.7	4.0	2.0	2.5
3	3.0	4.6	5.4	5.3	5.6	5.5	4.0	2.2	3.5	3.5	4.0	3.0
4	4.0	4.8	6.2	3.9	4.9	5.5	4.2	3.0	4.0	4.6	3.4	2.6
5	3.5	5.3	4.2	6.3	4.0	4.2	4.3	2.9	6.4	3.6	2.5	3.5
6	4.2	4.0	2.3	5.5	5.5	4.1	2.7	3.4	2.9	6.0	1.3	3.5
7	4.0	5.9	3.6	5.2	6.6	4.9	2.0	2.4	4.5	2.5	0.8	1.2
8	4.0	5.7	4.2	6.9	5.0	4.0	3.9	4.0	4.0	5.4	1.2	1.6
9	4.5	4.0	4.0	6.3	4.0	3.9	4.2	3.2	3.8	4.0	3.2	4.8
10	4.6	5.4	4.7	5.5	6.2	3.8	4.5	3.4	4.5	3.5	3.3	2.4
11	4.7	4.8	6.5	5.3	4.4	3.4	2.5	5.5	4.0	3.8	2.1	1.8
12	3.0	4.5	4.2	8.2	4.7	3.7	2.6	3.5	3.2	5.6	2.3	3.6
13	6.7	4.0	4.2	8.0	5.4	4.7	2.3	4.3	3.9	3.0	0.5	2.4
14	5.8	5.2	4.2	10.2	2.6	2.3	3.1	4.5	2.5	4.5	0.9	4.0
15	4.0	5.2	6.5	1.6	5.8	4.8	5.7	4.5	1.8	3.7	4.0	3.5
16	3.9	3.6	7.0	4.0	4.5	1.8	4.0	4.6	2.2	3.4	3.0	3.2
17	3.2	3.5	4.5	4.8	5.4	2.0	6.0	4.0	1.6	2.2	2.9	4.0
18	5.5	4.0	4.5	4.7	5.6	1.6	4.7	6.0	3.2	4.0	2.0	4.0
19	5.0	4.6	5.4	4.8	4.6	3.3	5.0	4.0	3.3	4.5	1.2	3.6
20	3.5	3.5	4.5	7.2	4.3	3.5	3.8	2.9	1.2	2.5	1.7	3.5
21	5.0	3.5	4.2	6.5	3.0	3.3	4.6	2.0	4.0	4.0	2.6	3.5
22	5.2	4.5	4.4	5.0	4.0	1.2	3.7	4.3	5.3	3.6	4.0	3.7
23	4.0	5.3	8.0	6.0	4.8	2.5	3.4	3.9	2.6	4.6	2.9	4.7
24	3.5	4.5	4.7	5.0	5.0	2.9	0.7	3.6	4.0	2.5	2.6	3.3
25	3.5	3.7	4.5	5.8	5.5	3.2	0.6	4.5	3.2	4.1	2.1	5.6
26	4.8	6.1	6.0	4.0	4.5	3.3	3.7	4.6	1.4	6.6	3.6	3.7
27	3.5	5.4	7.0	4.1	6.0	4.8	2.8	5.0	3.9	3.6	3.1	4.0
28	5.0	4.1	4.9	5.8	5.7	4.9	2.4	5.1	4.0	2.7	1.2	4.4
29	2.0	..	6.0	6.0	3.0	3.8	2.9	4.0	1.7	3.5	3.8	4.8
30	4.9	..	5.5	5.0	5.8	3.7	2.2	3.5	3.1	3.0	4.0	3.8
31	4.7	..	7.4	..	6.4	..	3.5	2.6	..	3.0	..	3.8

## 20.25 Evaporation during 24 hours ending 08.30 hrs. Indian Standard Time (m.m.)

Centre: TRIVANDRUM

Year: 1980

Date	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	3.6	5.4	4.0	5.6	3.7	2.8	4.0	3.2	4.5	1.8	5.5	3.3
2	4.7	4.3	6.5	5.3	4.2	4.0	3.1	4.5	4.0	4.5	3.4	4.0
3	4.0	6.2	4.5	5.2	2.0	1.9	3.6	3.3	5.0	3.8	4.6	4.5
4	3.6	4.0	4.4	4.5	5.0	2.6	3.1	4.2	4.5	4.5	5.5	3.0
5	4.2	4.0	5.5	2.3	6.0	2.2	4.0	3.5	6.6	3.1	4.3	3.7
6	5.4	2.8	5.0	4.2	5.0	1.8	4.0	5.8	4.3	3.0	3.0	4.9
7	4.0	5.7	5.5	6.4	6.2	3.5	4.7	3.0	3.6	3.5	2.8	4.5
8	3.5	4.5	5.6	4.5	6.0	1.1	3.2	3.5	4.0	4.0	4.2	4.0
9	3.5	6.1	5.3	2.3	3.5	3.2	3.8	6.4	4.1	2.4	4.0	4.0
10	6.2	5.7	5.0	4.2	5.5	3.8	3.7	4.7	4.5	2.5	3.7	4.2
11	3.5	6.6	5.5	6.0	5.5	3.7	4.3	3.3	6.0	3.1	3.7	4.5
12	5.0	4.0	5.5	5.0	5.7	3.3	3.8	3.9	3.3	4.1	4.4	2.8
13	4.4	5.8	3.9	6.6	4.9	4.4	3.2	3.4	5.7	2.9	4.0	2.7
14	5.9	6.8	5.0	5.5	3.7	4.0	2.8	4.6	4.0	3.9	3.6	2.8
15	4.0	6.2	5.0	5.7	3.0	4.2	3.8	1.8	5.0	2.7	3.5	5.5
16	5.6	4.0	6.0	5.5	3.8	2.5	3.1	6.0	3.8	3.1	3.0	3.4
17	4.2	3.5	6.0	4.5	4.0	4.3	3.5	3.4	4.8	2.7	3.5	3.9
18	6.2	5.5	5.0	5.6	5.7	3.9	3.2	3.6	4.4	2.3	2.5	2.7
19	4.0	6.0	5.5	4.0	3.6	3.8	4.6	2.9	4.5	4.1	1.7	3.5
20	5.8	4.5	4.7	4.2	5.8	1.6	3.0	3.0	5.4	4.0	4.0	4.0
21	3.4	4.0	6.0	5.4	6.0	1.6	3.5	4.1	5.4	3.6	4.0	3.2
22	5.5	5.0	5.6	5.2	4.4	1.7	3.0	3.8	4.5	5.0	1.7	6.0
23	5.0	6.3	6.0	6.0	6.8	3.5	3.1	3.9	5.0	4.6	3.2	2.6
24	3.8	5.0	5.5	5.0	5.0	3.8	2.7	3.4	3.8	4.3	3.8	2.6
25	4.0	5.6	6.0	5.3	4.0	4.4	3.1	3.0	3.9	3.2	4.7	3.6
26	6.1	3.5	5.6	6.9	5.5	3.4	3.0	5.2	4.4	2.5	4.0	5.3
27	5.5	6.6	5.0	6.0	5.3	2.7	3.7	1.1	4.1	3.0	2.8	4.5
28	5.1	5.0	4.7	5.0	4.7	1.0	2.1	3.1	5.3	3.7	2.9	2.4
29	4.3	6.0	6.0	16.2	5.4	4.6	3.5	3.2	3.4	4.0	3.6	3.3
30	6.2	..	6.0	5.5	3.8	4.2	3.5	5.0	4.6	4.6	3.0	4.8
31	4.8	..	5.1	..	3.6	..	3.1	3.9	..	4.0	..	5.9

## 20.26 S. T. D. Station Codes for Kerala

To/From	Trivandrum	Quilon	Kottayam	Alleppey	Ernakulam	Trichur	Palghat	Calicut	Cannanore	Narakkal
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Trivandrum	..	0474	0481	0477	92	0487	0491	0495	0497	04852
Quilon	0471	..	0481	0477	0484	0487	0491	0495	0497	04852
Kottayam	0471	0474	..	0477	0484	0487	0491	0495	0497	04852
Alleppey	0471	0474	0481	..	0484	0487	0491	0495	0497	04852
Ernakulam	0471	0474	0481	0477	..	0487	0491	0495	0497	04852
Trichur	0471	0474	0481	0477	0484	..	0491	0495	0497	04852
Palghat	0471	0474	0481	0477	0484	0487	..	0495	0497	04852
Calicut	0471	0474	0481	0477	0484	0487	0491	..	94	04852
Cannanore	0471	0474	0481	0477	0484	0487	0491	93	..	04852
Narakkal	0471	0474	0481	0477	0484	0487	0491	0495	0497	..

## 20.27 S. T. D. Station Codes for Other Important Places

To/From	Bangalore	Bombay	Calcutta	Coimbatore	Erode	Hyderabad	Madras	Madurai	New Delhi	Ooty	Patna	Salem	Tiruppur
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Trivandrum	0812	022@	033*	0422	0424	0842	044	0452	011	0423	0612*	0427	0421
Quilon	..	..	..	..	..	..	..	..	..	..	..	..	..
Kottayam	..	..	..	..	..	..	..	..	..	..	..	..	..
Alleppey	..	..	..	..	..	..	..	..	..	..	..	..	..
Ernakulam	..	..	..	..	..	..	..	..	011	..	..	..	..
Trichur	..	..	..	..	..	..	..	..	..	..	..	..	..
Palghat	..	..	..	..	..	..	..	..	..	..	..	..	..
Calicut	0812	..	..	..	..	..	..	..	..	..	..	..	..
Cannanore	..	..	..	..	..	..	..	..	..	..	..	..	..
Narakkal	..	..	..	..	..	..	..	..	..	..	..	..	..

\* Night Services only

@ Route will be commissioned shortly

## 20.28 Important Telephone Numbers concerning Fisheries

Sl.No.	Name	Office	Residence
(1)	(2)	(3)	(4)
1.	Minister of Revenue and Fisheries	{ 67561 67759	65053 & 64813
2.	Private Secretary to Minister	67759	3473
3.	Additional Private Secretary	67561	64812
4.	P. A. to Minister	67759	65148
5.	Commissioner for Economic Development	67391	63362



Sl.No.	Name	Office	Residence
(1)	(2)	(3)	(4)
6.	Special Secretary and Development Commissioner	65992	63350
7.	Special Secretary, Fisheries and Ports	67658	60065
8.	Joint Secretary, Fisheries and Ports	61276	..
9.	Under Secretary, Fisheries and Ports	64208	..
10.	Section	65833	..
11.	Fisheries Development Adviser, Ernakulam	(92) 37807	Trunk 645 Azhikode
12.	Director, P. S. Kumaradas	61160	3240
13.	Directorate of Fisheries	61042	
14.	Joint Director (General)	65742	
15.	Joint Director (Mechanisation)	62103	5567
16.	Joint Director (Planning & Monitoring)	61042	66028
17.	Joint Director (Inland) Ernakulam	(92) 37807	
18.	Administrative Officer	64116	
19.	Deputy Registrar	62103	
20.	Co-ordination Officer	61598	
21.	Financial Assistant	64348	
22.	Chief Mechanical Engineer	65846	65694
23.	Deputy Director of Fisheries, Quilon	(0474) 2413	
24.	Do. (Zonal) Ernakulam	(92) 34466	(92) 34560
25.	Do. Calicut	(0495) 73780	
26.	Do. Cannanore	(0497) 4376	
27.	Do. Malampuzha	(0491) 8143	
28.	Deputy Director (Training), Ernakulam	(92) 33371	
29.	Project Officer, A.R.C., Pudiappa	(0495) 62237	
30.	Do. A.R.C., Anjengo		Trunk 96 Vakkom
31.	Project Officer, A.R.C., Vypeen	(04852) 428	
32.	Do. A.R.C., Parappanangadi		Trunk 33
33.	Do. Infrastructure, Ambalapuzha		Trunk 69
34.	Do. Cheruvathur		Trunk 406
35.	Do. Mussel Culture, Vizhinjam	(584) 29	
36.	Assistant Project Officer, Pearl Culture, Vizhinjam	(584) 29	
37.	Assistant Director of Fisheries, Trivandrum	61849	
38.	Do. Alleppey	(0477) 3933	
39.	Do. Kottayam	(0481) 8206	
40.	Do. Trichur	(0487) 23608	
41.	Do. Ponnani		Trunk 128
42.	Project Officer, Gill Net Scheme, Vizhinjam	(584) 35	
43.	Superintending Engineer, Vizhinjam Harbour Project	(584) 3947	
44.	Executive Engineer do.	(584) 49	
45.	Superintendent, Fishermen Training Centre, Vizhinjam	(584) 35	
46.	Do. Beypore	(0495) 8474	
47.	Do. Boat Building Yard, Sakthikulangara	(0474) 3748	
48.	Do. Beypore	(0495) 8432	
49.	Inspection Bungalow, Vizhinjam	(584) 59	
50.	Managing Director, Kerala Fisheries Corporation, Ernakulam	(92) 33009	(92) 31526
51.	Kerala Fisheries Corporation Office, Ernakulam	(92) 32365	
52.	Managing Director, Kerala Fishermen's Welfare Corporation, Trivandrum	65201	
53.	Kerala Fishermen's Welfare Corporation, Office, Trivandrum	65764	
54.	Director, Central Institute of Fisheries Technology	(92) 6880 (Dr.) & 6845	
55.	Director, Central Marine Fisheries Research Institute	(92) 34748 (Dr.) & 31867 & 31535	32877
56.	Do. Integrated Fisheries Project	(92) 33317 (Dr.) & 34760	35893
57.	Do. C.I.F. Net	(92) 31490 (Dr.) & 31002	
58.	Chairman, M.P.E.D.A., Ernakulam	(92) 31979 & 26973 (Chairman)	

## 20.29 Conversion Factors

To convert	To	Multiply by	
(1)	(2)	(3)	
Acres	Hectares	0.404	686
Centigrams	Grains	0.154	324
Centimetres	Inches	0.393	701
Chains	Feet	66	
Chains	Kilometres	0.020	116
Cubic Centimetres	Cubic Inches	0.061	024
Cubic Feet	Cubic Metres	0.028	316
Cubic Feet per Acre	Cubic Metres per Hectare	0.069	972
Cubic Feet	Litres	28.316	1
Cubic Inches	Cubic Centimetres	16.387	1
Cubic Metres	Cubic Yards	1.307	95
Cubic Metres	Cubic Feet	35.314	7
Cubic Metres	Gallons (Imp.)	219.969	
Cubic Metres	Gallons (U.S.)	219.969	
Cubic Metres	Litres	999.97	
Cubic Metres per Hectare	Cubic Feet per Acre	14.291	374
Drahm (Fluid)	Cubic Centimetres	3.551	63
Drac. (map. & tr.)	Grams	3.887	94
Feet	Metres	0.304	8
Fluid ounces	Cubic Centimetres	28.413	2
Fluid ounces	Cubic Inches	1.733	88
Furlongs	Metres	201.168	
Gallons (Imp.)	Cubic Centimetres	454.609	
Gallons (Imp.)	Cubic Inches	277.420	
Gallons (Imp.)	Gallons (U.S.)	1.200	94
Gallons (Imp.)	Litres	4.546	09
Gallons (U.S.)	Litres	3.785	43
Hectares	Acres	2.471	05
Hundred weights	Kilograms	50.802	
Hundred weights	Maunds	1.361	11
Hundred weights	Tons	0.05	
Hundred weights	Tons (Metric)	0.050	802
Inches	Centimetres	2.54	
Kilograms	Pounds (ap.tr.)	2.679	23
Kilograms	Pounds (av.)	2.204	62
Kilograms	Seers	1.071	69
Kilolitres	Cubic Feet	35.315	6
Kilolitres	Cubic Metres	1.000	028
Kilolitres	Gallons (Imp.)	219.976	
Kilometres	Chains	49.709	7
Kilometres	Mile	0.621	
Litres	Cubic centimetres	1,000.028	
Litres	Cubic feet	0.035	315
Litres	Gallons (Imp.)	0.219	976
Maunds	Metric tonnes	0.037	324
Maunds	Tons	0.036	734
Metres	Inches	39.370	13
Metres	Feet	3.280	843
Metres	Yards	1.093	614
Miles	Kilometres	1.609	344
Metric Tonnes	Maunds	26.792	3
Metric Tonnes	Tons	0.984	20
Pints	Gallons (Imp.)	0.125	
Pounds (Av.)	Kilograms	0.453	592
Pounds (Av.)	Grams	453.592	4
Pounds (Av.)	Seers	0.486	111
Quintals	Kilograms	100	
Square Centimetre	Square Inch	0.155	0
Square Feet	Square Metres	0.092	903
Square Feet per Acre	Square Metre per Hectare	0.229	572
Square Inches	Square Centimetres	6.451	6
Square Kilometres	Square miles	0.386	102
Square Metres	Square Feet	10.763	9
Sq. Metres per Hectare	Sq. Feet per acre	4.356	
Square Miles	Square Kilometres	2.589	99
Square Yards	Square Metres	0.836	13
Tolas	Grams	11.663	8
Tons	Maunds	27.222	2
Tons	Metric Tonnes	1.016	05
Yard	Metre	0.914	4
	1 Fathom	=	6 ft.
	1 latitude	=	111.04 Km.
	1 Km.	=	5/8 miles
	1 Koss	=	200 yards
	1 pice	=	2.5 cm.
	80 chains	=	1 mile/1.6 km.
	1 sq. yard	=	1296 inches
	1 are	=	100 sq. mts.
		=	0.025 acres

Source: Extract reproduced from I. S. 786-1956 in which this table appears as INDEX.

## Conversion Factors (Contd.)

1 Ha.	=	10,000 sq. m., 11960 sq. yards
1 sq. mile	=	640 acres 259 ha.
42 cft of timber	=	1 Shipping ton
1 Cum/ha	=	14.29 cft/acre
1 Cft of Water	=	6.22786 gallons
20 cwt	=	1 ton
2 Table spoon	=	1 Fluid oz.
1 dessert Spoon	=	1/2 Table spoon
1 Tea spoon	=	1/2 dessert spoon
1 quire	=	24 sheets
1 ream	=	20 quires
2 reams	=	1 bundle

## Reciprocals

<b>Length:</b>			
1 Inch.	=	2.540 cm.	3.3937
1 Yard	=	0.91430841 m	1.093615
1 Mile	=	1.609 k.m.	0.6214
	=	8 Km=5 miles (approx.)	
<b>Area:</b>			
1 in <sup>2</sup>	=	6.452 cm <sup>2</sup>	6.1550
1 ft <sup>2</sup>	=	0.09290 m <sup>2</sup>	10.764
1 yd <sup>2</sup>	=	0.8361 m <sup>2</sup>	1.196
1 mile <sup>2</sup>	=	2.590 km <sup>2</sup>	0.3861
<b>Volume:</b>			
1 in <sup>3</sup>	=	16.39 cm <sup>3</sup>	0.06102
1 ft <sup>3</sup>	=	28.32 litres	0.03531
	=	0.02832 m <sup>3</sup>	35.314
1 gallon	=	4.456 ltrs.	0.220
	=	0.004546 m <sup>3</sup>	220.0
	=	277.42 m <sup>3</sup> in (U.K.)	0.003605
6 gallon (USA)	=	232 m <sup>3</sup>	0.004329
<b>Mass:</b>			
1 oz. (avoir)	=	28.35 gm.	0.03527
1 lb	=	0.4535923 gm.	2.204623
	=	7000 grains (Troy)	0.0001429
1 Ton	=	1016 Kg.	0.0009842
1 cwt.	=	50.8023376 kg.	

## 20.30 Instant Conversion Table

Foot to metre		Metre to foot	Miles to Km.		Km. to mile
(1)		(2)	(3)		(4)
0.3048	1	3.28084	1.60934	1	0.62137
0.6096	2	6.562	3.219	2	1.243
0.9144	3	9.843	4.828	3	1.864
1.2192	4	13.123	6.437	4	2.485
1.5240	5	16.404	8.047	5	3.107
1.8288	6	19.685	9.656	6	3.728
2.1336	7	22.966	11.265	7	4.350
2.4384	8	26.247	12.875	8	4.971
2.7432	9	29.528	14.484	9	5.952

Sq. mile to Sq. km.		Sq. km. to sq. mile	lb to kg.		Kg. to lb.
2.58999	1	0.3861	0.45359	1	2.20462
5.18	2	0.772	0.907	2	4.409
7.77	3	1.158	1.361	3	6.614
10.36	4	1.544	1.814	4	8.818
12.95	5	1.931	2.268	5	11.023
15.54	6	2.317	2.722	6	13.228
18.13	7	2.703	3.175	7	15.432
20.72	8	3.089	3.629	8	17.637
23.31	9	3.475	4.082	9	19.842

How to use—

Reading from line 5 of the first table

5 ft.—1.5240 mts and 5m—16.404 ft.

Values above 9 may be obtained by decimal point adjustment and addition. For example, to convert 432 sq. m. to sq. km. from third table.

400 sq.m.	1036.00
30 sq. m.	77.70
2 sq. m.	5.18
432 sq. m.	1118.88

N.B. Such results should be treated as approximate.

## 20.31 Distance of Important Places from Trivandrum by Road

Important places	Distance km.	Important places	Distance km.
(1)	(2)	(3)	(4)
Nedumangad	20	Thodupuzha	211
Neyyattinkara	21	Peermedu	215
Parassala	31	Muvattupuzha	222
Attingal	34	Kothamangalam	223
Kilimanoor	41	Perumbavoor	228
Ponmudi	64	Neriyamangalam	240
Kallada	84	Moolamattom	244
Pathanapuram	89	Thekkadi	252
Adoor	94	Idiikki	284
Pathanamthitta	115	Pallivasal	291
Kozhencherry	120	Kodungalloor	303
Ranni	129	Devikulam	308
Pandalam	130	Ponnani	318
Ambalapuzha	145	Chavakkad	330
Chittur	153	Guruvayoor	330
Alleppey	159	Kunnamkulam	326
Moozhiyar	171	Alathur	346
Kanjirappally	176	Perinthalmanna	374
Shertallai	183	Kottakkal	382
Poonjar	185	Malappuram	393
Palai	188	Manjery	394
Koothattukulam	192		
Thaliparamba	550		

## 20.32 Distance of Important places from Trivandrum by rail and Road

Important places	Distance by		Important places	Distance by	
	Road (Kms.)	Rail (Kms.)		Road (kms.)	Rail (kms.)
(1)	(2)	(3)	(4)	(5)	(6)
R.I.			Pattambi	351	340
Veli	8	7	Kuttiappuram	357	358
Kazhakuttam	16	14	Tirur	391	373
Kaniyapuram	20	18	Parappanangadi	434	389
Murukkumpuzha	32	22	Feroke	420	405
Chirayinkil	40	29	Calicut	432	414
Kadakavur	42	32	West Hill	436	419
Varkala	56	42	Quilandi	456	439
Edavai	65	46	Payyoli	468	451
Paravur	61	53	Badagara	480	461
Quilon	73	65	Tellicherry	482	483
Sasthamkottah	96	85	Cannanore	524	504
Karunagappalli	98	93	Valapattanam	533	510
Oachira	107	100	Payangadi	543	525
Kayamkulam	113	106	Payyannur	567	537
Mavelikkara	125	114	Nileshwar	592	556
Chengannur	117	127	Kanhangad	605	566
Thiruvalla	126	136	Kasargod	641	589
Changanacherri	134	144	Manjeshwar	670	618
Kottayam	172	161			
Ettumanur	160	172	R.II Kundara	..	78
Trippunithura	230	211	Kottarakkara	73	91
Ernakulam	222	221	Punalur	74	110
Kalamasseri	235	235	Thenmalai	79	132
Alwaye	243	241	Aryankavu	91	144
Angamali/Kaladi	258	250	R.III Ottapalam	..	341
Chalakudi	272	265	Lakkidi	..	348
Irinjalakuda	286	272	Olavakkot	378	373
Pudukkud	289	282	Palghat	371	378
Trichur	302	296	Kollengode	..	396
Vadakkancherry	321	312	R.IV Vaniyambalam	..	384
Shoranur	337	328	Nilambur	418	394

20.33 Distance along Main Central Road (Trivandrum-Angamaly)

Trivandrum	Kilimanoor	Kottarakara	Adoor	Pandalam	Chengannur	Thiruvalla	Changanacherry	Kottayam	Ettumanoor	Muvattupuzha	Perumbavoor	Angamaly
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	40	74	95	105	118	128	136	154	165	209	228	242
	Kilimanoor	34	55	65	78	88	96	114	125	169	188	202
		Kottarakara	21	31	44	54	62	80	91	135	154	168
			Adoor	10	23	33	41	59	70	114	133	147
				Pandalam	13	23	31	49	60	104	123	137
					Chengannur	10	18	36	47	91	110	124
						Thiruvalla	8	26	37	81	100	114
							Changanacherry	18	29	73	92	106
								Kottayam	11	55	74	88
									Ettumanoor	44	63	77
										Muvattupuzha	19	33
											Perumbavoor	14

Adoor—Punalur 30; Adoor—Kayamkulam 27; Adoor—Pathanamthitta 21; Pandalam—Mavelikkara 18; Chengannur—Haripad 28; Thiruvalla—Mavelikkara 19;  
 Changanacherry—Alleppey 31; Kottayam—Kanjirappally 39; Kanjirappally—Mundakayam 16; Kanjirappally—Peermade 35; Peermade—Vandiperiyar 22;  
 Vandiperiyar—Kumali 15; Kumali—Tlekkadi 2; Kumali—Munnar 115; Ettumanoor—Vaikom 30; Vaikom—Ernakulam 29; Muvattupuzha—Kothamangalam 12;  
 Kothamangalam—Munnar 81; Muvattupuzha—Ernakulam 42.